

Guardian Angel

Public safety is our first priority

2021

Since 1978



BLISS

BLISS YIH ENTERPRISE CO., LTD.

Metallic Flexible Conduit & Fitting

Flexible Conduit, Conduit Connector, Conduit Fitting,
EMI/RFI Shielding Conduit, Flexible Carrier

Quality • Efficiency • Service



Company profile

www.blissyih.com.tw

Super Quality • High Efficiency • Best Service

Bliss's logo comes from the Chinese character 百 (hundred). The center spot represents Bliss's core value, "good quality". The outer circles represent our hands, meaning all our staff will hold and protect our core value wholeheartedly. The word "BLISS" means the greatest happiness. Additionally, B represents "Brain"; L represents "Labor"; I represents "Increase"; S represents "Sincerity"; S represents "Service", Bliss integrates them all to offer better customer experience.

Our Mission

At Bliss, we devote ourselves to quality, efficiency and service because "Public safety is our first priority" and "BLISS flexible conduits represent safety and economy."

About BLISS

Established in 1978, Bliss Yih Enterprise Co., Ltd. is dedicated to offering high quality flexible conduits and connectors with good customer services. Based on our mission, we combine our brain, labor, increase, sincerity and service to create a customer-friendly company. Located in Taiwan, a subtropical island, BLISS is full of hospitality and is earnest to customers. With over 40 years of experience we have taken part in many famous constructions across Taiwan, such as Taipei, and Kaohsiung's M.R.T., Taiwan Power Plants, and Taipei 101. We also supply the petrochemical industry, machinery industry, power plants and other overseas facility constructions. Our overseas market is wide including Asia, the Middle East, Europe, North America and Australia. We welcome cooperation opportunities all over the world.

BLISS Products

Bliss focuses on the production of flexible conduits and fitting, and we dedicate ourselves to high quality with reasonable prices. We are proud that all our products are made in Taiwan and are durable. We understand the importance of electrical safety, thus we have strict QC processes and our R&D department continually innovates and improves.

Application

Flexible conduits and fittings are widely applied in all industries, such as building construction, lighting, machinery, surveillance systems, medical equipment, transportation, telecommunications and anywhere requiring enhanced cable management and fire prevention. Our comprehensive product line will fulfill all kinds of needs, such as liquid-tight, EMI screening, high flexibility, hi or low temperatures, and so on.

R & D

To comply with our environmentally-friendly policy, BLISS keeps developing "green products". All Bliss products are RoHS compliant. Additionally, we have excellent R&D ability, all the production machines are self-manufactured. Our patents include Flexible conduit manufacturing machine: Copyright no. 48293 & 48377, PAT no. 55064, 61982, electrical appliance signal filter conduit PAT. no. 39811, other patents: 7063, 89853.

BLISS Flexible Conduit Represents Safety And Economy

Certification

As good quality is our core value, BLISS has many certifications to prove our capability. ISO 9001 issued by BSI represents our fine quality management policy. UL, cULus listings represent our strict product quality managements.

Brain / Labor / Increase / Sincerity / Service

Public Safety is Our First Priority



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FM27105



Underwriters
Laboratories Inc.
#E113601
#E118165
#E136208



Underwriters
Laboratories Inc.
#E113601



Underwriters
Laboratories Inc.
#E118165
#E136208



BSI
Test Report:
286/4827800

Fast Retrieval

	Product Series	Metal	Plastic	Certification	Low smoke	Halogen free	Temperature range (° C)	IP code	Page #
Liquid-tight	A2066 	Galvanized Steel	PVC	cULus			-20 ~ +60	67	05
	R2066 	Galvanized Steel	PVC	cULus			-20 ~ +80	67	05
	S2066 	Galvanized Steel	PVC	cULus			-55 ~ +105	67	05
	U2066 	Galvanized Steel	TPU	cULus	V	V	-40 ~ +80	67	15
	A2067 	Galvanized Steel	PVC				-20 ~ +70	67	06
	R2067 	Galvanized Steel	PVC				-20 ~ +80	67	06
	S2067 	Galvanized Steel	PVC				-55 ~ +105	67	06
	A2167 	Galvanized Steel	PVC				-25 ~ +60	67	07
	A2017 	Galvanized Steel	PVC				-20 ~ +70	65	08
	A2018 	Galvanized Steel	PVC				-20 ~ +70	65	08
	A2017-ST 	Stainless Steel #304	PVC				-20 ~ +70	65	08
	U2017 	Galvanized Steel	TPU		V	V	-40 ~ +80	65	16
	T2017 	Stainless Steel #304	PVC				-20 ~ +70	65	12
	A9333 	Galvanized Steel #304 Braiding	PVC				-20 ~ +70	65	17
	A9533 	Galvanized Steel #304 Braiding	PVC				-20 ~ +70	65	17
	M2017 	Galvanized Steel	PVC				-20 ~ +70	65	14
	M2017-ST 	Stainless Steel #304	PVC				-20 ~ +70	65	14
	M2017-S6 	Stainless Steel #316	PVC				-20 ~ +70	65	14
	N2017 			PA6		V	-30 ~ +105	65	23
	E2017 			PE			-30 ~ +80	65	23
P2017 			PP			-25 ~ +80	65	24	

*IP rating after assembled with BLISS connector

	Product Series	Metal	Plastic	Certification	Low smoke	Halogen free	Temperature range (° C)	IP code	Page #
Non-liquid-tight	A2082	 Galvanized Steel						50	09
	A2012	 Galvanized Steel						50	10
	A2013	 Stainless Steel #304						50	10
	A7012	 Galvanized Steel						50	11
	A7013	 Stainless Steel #304						50	11
	T2013	 Stainless Steel #304						50	12
	M2012	 Galvanized Steel						50	13
	M2013	 Stainless Steel #304						50	13
	M2016	 Stainless Steel #316						50	13
	A9133	 Galvanized Steel #304 braiding						50	17
Cable Carrier	A8012	 Galvanized Steel							42
	CF101	 Stainless Steel	PA						42
	A8019	 PA+FRP	PA+FRP				-20 ~ +125		44
EMI Shielding	A2116	 Galvanized Steel Tinned Copper braiding	PVC				-20 ~ +70	67	21
	A7207	 Copper	PVC				-20 ~ +70	67	21
	A7307	 Brass	PVC				-20 ~ +70	67	21
	A7217	 Copper Strip Tinned Copper braiding	PVC				-20 ~ +70	67	21
	A7317	 Brass Strip Tinned Copper braiding	PVC				-20 ~ +70	67	21
	A2207	 Copper	PVC				-20 ~ +70	65	21

*IP rating after assembled with BLISS connector

Liquid-tight Flexible Metal Conduit (LFMC) – UL/cULus Type

UL listed Liquid-tight flexible steel conduit assembled with UL listed connector provides excellent liquid-tight performance and can be applied in Class 1 Division 2 hazardous area. This series also contains EMI/RFI shielding ability.

A2066

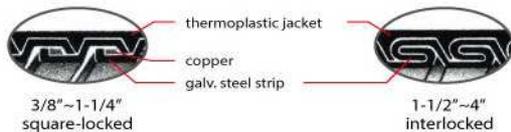
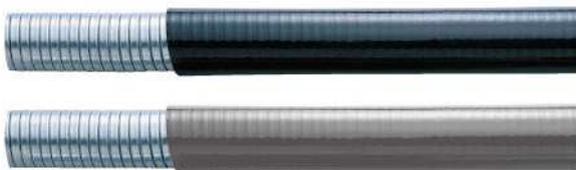
- UL/cULus Listed
- UL Rating: Dry -20°C~60°C, Wet 60°C, Oil 60°C
- CSA Rating: Dry, Oil 60°C
- Color: Black

R2066

- UL/cULus Listed
- UL Rating: Dry -20°C~80°C, Wet 60°C, Oil 70°C
- CSA Rating: Dry, Oil 75°C
- Color: Black, gray, other colors are available by request

S2066

- UL/cULus Listed
- UL Rating: Dry -55°C~105°C, Wet 60°C, Oil 70°C
- CSA Rating: Dry -50°C~105°C, Oil 75°C
- Color: Black



Features

Construction:

- Corrosion-resistant, hot-dipped galvanized steel strip wound, RoHS and UL 360 compliant PVC jacketed.
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Sizes 3/8"~1-1/4" by square-locked and a continuous copper bonding strip built into the core. Sizes 1-1/2"~4" by interlocked and must be installed with a separate grounding conductor to conform with NEC article 250.

Certification:

- Conform to UL 360/CSA C22.2 No. 56, file no. E118165.
- Meet Taiwan Power Company 1134.201-ES-7 (REV.2) Spec. of electrical flexible conduit, file no. 77-099.

Application:

- For circuits lower than 600 volts.
- For using as grounding, 3/8"~1/2" for circuits lower than 20A, 3/4"~1-1/4" for circuits lower than 60A, length shall not longer than 1.8m as National Electrical Code (NEC) 250.118
- For conveyer, blowers, conditioning facility and machinery tools
- For places where wires need to be away from water, oil, gas or dusts and require flexibility
- For motor leads connection
- For hazardous area Class 1 Division 2, Class 2 Division 1, Class 2 Division 2, Class 3 Division 1, Class 3 Division 2, Class 1 Zone 2
- According to NEC 350.6, LFMC and associated fittings shall be listed.

Standard:

- UL 360, CSA C22.2 No.56
- ANSI/NFPA 70, NEC 350
- ANSI/NFPA 70, NEC 250.118 (6)

Trade Size (inch)	Catalog Number			Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
3/8"	A20660300	R20660300	S20660300	12.29	12.80	17.50	18.00	50.5	30
1/2"	A20660400	R20660400	S20660400	15.80	16.31	20.80	21.30	82.5	30
3/4"	A20660600	R20660600	S20660600	20.83	21.34	26.20	26.70	108.0	30
1"	A20661000	R20661000	S20661000	26.44	27.08	32.80	33.40	165.0	20
1-1/4"	A20661200	R20661200	S20661200	35.05	35.81	41.40	42.20	203.0	15
1-1/2"	A20661400	R20661400	S20661400	40.01	40.64	47.40	48.30	228.5	15
2"	A20662000	R20662000	S20662000	51.31	51.94	59.40	60.30	282.5	10
2-1/2"	A20662400	R20662400	S20662400	62.99	63.63	72.10	73.00	374.5	8
3"	A20663000	R20663000	S20663000	77.98	78.74	87.90	88.90	444.5	8
4"	A20664000	R20664000	S20664000	101.60	102.62	113.30	114.30	609.5	5

Liquid-tight Flexible Steel Conduit – EF Type

A2067

- Temperature range: -20°C ~ 70°C

R2067

- Temperature range: -20°C ~ 80°C

S2067

- Temperature range: -55°C ~ 105°C


 5/16"~1-1/4"
square-locked

 1-1/2"~4"
interlocked

Features

Construction:

- Galvanized steel strip wound, RoHS and UL 360 compliant PVC jacketed.
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Sizes 5/16"~1-1/4" by square-locked and filled with cord packing. Sizes 1-1/2"~4" by interlocked, same as A2066, R2066, S2066.
- Extra bonding conductor required.
- Color: Black, other colors are available by request.
- #304 or #316 Stainless steel core are available by request.

Application:

- High tensile, best performance on automatic machinery, sophisticated facility installation.
- For areas with gas and vapor

Trade Size (inch)	Catalog Number			Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
5/16"	A20670200	R20670200	S20670200	9.5	10.0	14.5	15.0	50	50
3/8"	A20670300	R20670300	S20670300	12.3	12.8	17.5	18.0	60	50
1/2"	A20670400	R20670400	S20670400	15.8	16.3	20.8	21.3	80	50
3/4"	A20670600	R20670600	S20670600	20.7	21.2	26.2	26.7	100	30
1"	A20671000	R20671000	S20671000	26.2	26.8	32.7	33.4	150	20
1-1/4"	A20671200	R20671200	S20671200	34.8	35.4	41.4	42.2	180	15
1-1/2"	A20671400	R20671400	S20671400	40.1	40.6	47.4	48.3	200	15
2"	A20672000	R20672000	S20672000	51.3	51.9	59.4	60.3	250	10
2-1/2"	A20662400	R20662400	S20662400	63.0	63.6	72.1	73.0	375	8
3"	A20663000	R20663000	S20663000	78.0	78.7	87.9	88.9	445	8
4"	A20664000	R20664000	S20664000	101.6	102.6	113.3	114.3	610	5

Liquid-tight Flexible Steel Conduit - BS Type

A2017

- Galvanized steel core
- Third party testing: BSI test approval under BS EN 61386.
- Color: Black, other colors are available by request

A2017-ST

- #304 Stainless steel core
- Color: Black, other colors are available by request



A2018

- Galvanized steel core
- Color: Gray



Features

Construction:

- Square-locked construction, RoHS and UL 360 compliant PVC jacketed.
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C
- Light, excellent flexibility and liquid-tightness.

Application:

- For mass production equipment, machine tools
- For places where wires need to be away from water, oil, gas or dusts and require flexibility
- For all kinds of industrial or commercial applications



Trade Size (inch)	Catalog Number			Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
5/16"	A20170200	A201702ST	A20180200	10.3	10.8	14.3	14.8	35	50
3/8"	A20170300	A201703ST	A20180300	12.3	12.8	16.7	17.2	35	50
1/2"	A20170400	A201704ST	A20180400	15.8	16.3	20.2	20.7	45	50
3/4"	A20170600	A201706ST	A20180600	20.8	21.3	25.6	26.1	50	50
1"	A20171000	A201710ST	A20181000	26.4	27.0	31.6	32.2	75	30
1-1/4"	A20171200	A201712ST	A20181200	34.7	35.4	40.7	41.4	100	25
1-1/2"	A20171400	A201714ST	A20181400	40.1	40.7	46.4	47.0	125	20
2"	A20172000	A201720ST	A20182000	51.3	51.9	58.1	58.7	150	15
2-1/2"	A20172400	A201724ST	A20182400	63.0	63.6	71.8	72.4	175	10
3"	A20173000	A201730ST	A20183000	78.0	78.7	87.2	87.9	200	10
4"	A20174000	A201740ST	A20184000	101.6	102.6	111.2	112.3	265	5

Flexible Metal Conduit – FMC (UL Listed)

A2082 |  



Features

Construction:

- Galvanized steel core
- High tensile, high impact strength and flexibility

Certification:

- Meets National Electrical Code 348 and Underwriters Laboratories requirements UL1, file #E113601. UL Listed trade size: 3/8"~2". UL Recognized trade size: 5/16".
- Meets Taiwan power company 1134.201-ES-7 (REV.2) spec. of electrical flexible conduit, file 77-099.

Application:

- For indoor or conditioning environment
- For power supply and lighting, motor and control panel
- For fire alarm system, signal cables, such as surveillance system and optical fiber cable
- For elevator, escalator, lift
- For hazardous area Class 3 Division 1, 2

Applicable to:

- ANSI/NFPA 70 National Electrical Code (NEC) 348
- UL1
- NEC 300-22 (c), 348, 620.21, 250.118(5), 600.7, 600.31 (1000 volts or less), 600.32 (>1000 volts), 501.10(B)(2) & 501.30(B)
- ANSI / NFPA 79 sec. 16, 16.3.4, 17.7, 17.9

Trade Size (inch)	Catalog Number	Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
5/16"	A20820250	7.92	8.32	11.94	12.95	44	30
3/8"	A20820300	9.52	9.96	14.22	15.49	50	30
1/2"	A20820400	15.88	16.38	21.84	23.37	75	30
3/4"	A20820600	20.62	21.21	26.54	28.07	100	30
1"	A20821000	25.40	26.42	33.02	35.05	125	30
1-1/4"	A20821200	31.75	33.02	39.37	41.40	160	20
1-1/2"	A20821400	38.10	40.01	46.99	49.53	190	20
2"	A20822000	50.80	52.83	59.69	62.23	255	15

Flexible Metal Conduit

A2012

- Third party testing: BSI test approval under BS EN 61386.
- Galvanized steel core, not liquid-tight.

A2013

- #304 Stainless steel core, not liquid-tight.
- #316 Stainless steel core is available by request, for high corrosion area, e.g. seashore



Features

Construction:

- Square-locked
- Small bending radius, high flexibility

Application:

- For motor leads connection
- For indoor wirings, such as lighting and OA system wiring
- For office partitioning and sound, data, cable TV, signal transmission
- For areas requiring high flexibility

Trade Size (inch)	Catalog Number		Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
5/16"	A20120200	A20130200	10.3	10.8	13.3	13.8	25	50
3/8"	A20120300	A20130300	12.3	12.8	15.6	16.2	33	50
1/2"	A20120400	A20130400	15.8	16.3	19.0	19.7	38	50
3/4"	A20120600	A20130600	20.7	21.2	24.4	25.1	45	50
1"	A20121000	A20131000	26.4	27.0	30.6	31.2	55	30
1-1/4"	A20121200	A20131200	34.7	35.4	39.5	40.2	62	25
1-1/2"	A20121400	A20131400	40.1	40.7	44.9	45.5	90	20
2"	A20122000	A20132000	51.3	51.9	56.1	56.7	110	15
2-1/2"	A20122400	A20132400	63.0	63.6	70.2	70.8	130	10
3"	A20123000	A20133000	78.0	78.7	85.2	85.9	160	10
4"	A20124000	A20134000	101.6	102.6	108.5	109.5	210	5

Flexible Metal Conduit

A7012

- Galvanized steel core, not liquid-tight.

A7013

- #304 Stainless steel core, not liquid-tight
- #316 Stainless steel core is available by request, for high corrosion area, e.g. seashore



Features

Construction:

- Interlocked
- Good tensile property
- Flat and smooth internal surface for better cable installation

Application:

- For large machinery or automatic machine which requires heavy bearing and tensile property
- For transportation facility and heavy industry



Trade Size (inch)	Catalog Number		Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
3/8"	A70120300	A70130300	12.3	12.8	15.3	15.8	55	30
1/2"	A70120400	A70130400	15.8	16.3	18.8	19.3	85	30
3/4"	A70120600	A70130600	20.8	21.3	23.8	24.3	110	30
1"	A70121000	A70131000	26.4	27.1	29.4	30.1	150	30
1-1/4"	A70121200	A70131200	35.1	35.8	39.5	40.2	175	15
1-1/2"	A70121400	A70131400	40.1	40.8	44.5	45.2	190	15
2"	A70122000	A70132000	51.3	52.0	55.7	56.4	240	15
2-1/2"	A70122400	A70132400	63.0	63.7	67.4	68.1	310	10
3"	A70123000	A70133000	78.0	78.7	83.0	83.7	380	10
4"	A70124000	A70134000	101.6	102.6	106.6	107.6	490	5

Small Bore Stainless Steel Flexible Conduit

T2013

- IP50
- #304 Stainless steel core.
- #316 Stainless steel core is available by request, type T2016, for high corrosion area, e.g. seashore.

T2017

- IP65
- #304 Stainless steel core, RoHS and UL 360 compliant PVC jacketed.
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C
- Color: Black, other colors are available by request.



T2013



T2017

Features

Construction:

- Square-locked
- Extremely small bending radius, high flexibility

Application:

- For the protection of small diameter wire, and fiber optics, such as linear scale and testing equipments



Trade Size (mm)	Catalog Number	Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
3.5 x 5.7	T20130350	3.3	3.7	5.5	5.9	17.5	100
4.0 x 6.2	T20130400	3.8	4.2	6.0	6.4	17.5	100
5.0 x 7.2	T20130500	4.8	5.2	7.0	7.4	17.5	100
6.0 x 8.2	T20130600	5.8	6.2	8.0	8.4	20.0	100
6.5 x 8.7	T20130650	6.3	6.7	8.5	8.9	20.0	100
7.0 x 9.2	T20130700	6.8	7.2	9.0	9.4	20.0	100
7.5 x 9.7	T20130750	7.3	7.7	9.5	9.9	20.0	100
8.0 x 10.2	T20130800	7.8	8.2	10.0	10.4	20.0	100
9.0 x 11.2	T20130900	8.8	9.2	11.0	11.4	22.5	100

Trade Size (mm)	Catalog Number	Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
5.0 X 8.5	T20170500	4.8	5.2	8.3	8.7	25.0	50
6.0 X 9.5	T20170600	5.8	6.2	9.3	9.7	27.5	50
6.5 X 10.0	T20170650	6.3	6.7	9.8	10.2	27.5	50
7.0 X 10.5	T20170700	6.8	7.2	10.3	10.7	32.5	50
7.5 X 11.0	T20170750	7.3	7.7	10.8	11.2	32.5	50
8.0 X 11.5	T20170800	7.8	8.2	11.3	11.7	35.0	50
9.0 X 12.5	T20170900	8.8	9.2	12.3	12.7	35.0	50

Flexible Metal Conduit - Europe Specification (Customized)

Not liquid-tight

M2012

- Galvanized steel core, not liquid-tight

M2013

- #304 Stainless steel core

M2016

- #316 Stainless steel core for high corrosion area, e.g. seashore

Features

Construction:

- Square-locked, meets Europe standard dimension
- Small bending radius, high flexibility
- Third party testing: BSI test approval under BS EN 61386
- Stainless steel braiding is available by request

Application:

- For mass production equipment and machine tools, or any narrow spaces requiring high flexibility
- For all kinds of industrial or commercial application



Trade Size	Catalog Number			Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
M12	M20120212	M20130212	M20160212	9.8	10.2	12.8	13.2	25	50
M16	M20120316	M20130316	M20160316	12.7	13.2	15.7	16.2	33	50
M20	M20120420	M20130420	M20160420	16.7	17.2	20.1	20.6	38	50
M25	M20120625	M20130625	M20160625	20.8	21.3	24.6	25.1	45	50
M32	M20121032	M20131032	M20161032	27.8	28.4	32.0	32.6	55	50
M40	M20121240	M20131240	M20161240	37.4	38.0	42.2	42.8	62	30
M50	M20121450	M20131450	M20161450	48.1	48.7	52.9	53.5	110	20
M63	M20122063	M20132063	M20162063	57.1	57.9	62.1	62.9	120	10
M75	M20122475	M20132475	M20162475	70.0	70.8	75.8	76.6	138	10
M100	M20124100	M20134100	M20164100	93.5	94.5	99.7	100.7	150	10

Liquid-tight Flexible Metal Conduit - Europe Specification (Customized)

Liquid-tight

M2017

- Galvanized steel strip wound, RoHS and UL 360 compliant PVC jacketed.
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant, high flexibility
- Temperature range: -20°C ~ 70°C
- Color: Black, other colors are available by request

M2017-ST

- #304 Stainless steel core, RoHS and UL 360 compliant PVC jacketed
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant, high flexibility.
- Temperature range: -20°C ~ 70°C
- Color: Black, other colors are available by request

M2017-S6

- #316 Stainless steel core, RoHS and UL 360 compliant PVC jacketed.
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant, high flexibility
- Temperature range: -20°C ~ 70°C
- Color: Black, other colors are available by request
- For high corrosion area, e.g. seashore

Features

Construction:

- Square-locked, meets Europe standard dimension
- Third party testing: BSI test approval under BS EN 61386
- Stainless steel braiding is available by request

Application:

- For mass production equipment and machine tools, or any narrow spaces requiring high flexibility
- For protection from liquid, oil, gas and dust
- For all kinds of industrial or commercial application



Trade Size	Catalog Number			Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
M12	M20170212	M201712ST	M201712S6	9.8	10.2	13.8	14.2	35	50
M16	M20170316	M201716ST	M201716S6	12.7	13.2	16.7	17.2	35	50
M20	M20170420	M201720ST	M201720S6	16.7	17.2	21.1	21.6	45	50
M25	M20170625	M201725ST	M201725S6	20.8	21.3	25.6	26.1	50	50
M32	M20171032	M201732ST	M201732S6	27.8	28.4	33.6	34.2	75	50
M40	M20171240	M201740ST	M201740S6	37.4	38.0	44.0	44.6	100	30
M50	M20171450	M201750ST	M201750S6	48.1	48.7	54.7	55.3	125	20
M63	M20172063	M201763ST	M201763S6	57.1	57.9	64.1	64.9	150	10
M75	M20172475	M201775ST	M201775S6	70.0	70.8	77.6	78.4	200	10
M100	M20174100			93.5	94.5	101.7	102.7	265	10

Braiding Conduit

A9133

- IP50
- Type A2012 (galvanized steel core) with #304 stainless steel braiding
- Good flexibility
- Not liquid-tight



A9333

- IP65
- Type A2017 (galvanized steel core with PVC jacket) with #304 stainless steel braiding
- Good flexibility
- Liquid-tight



Features

- Enhanced safety, prevents spark, welding slag, hot swarf and abrasion.
- Braiding can be applied to all BLISS products, by request

Application:

- Hazardous area
- A9133: Class 3 Division 1, Class 3 Division 2 ; A9333, A9533 : Class 2 Division 1, Class 2 Division 2, Class 3 Division 1, Class 3 Division 2
- Machine tools, motor lead connections

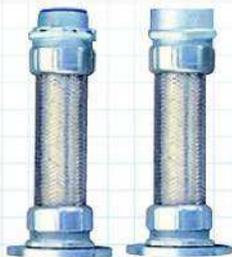
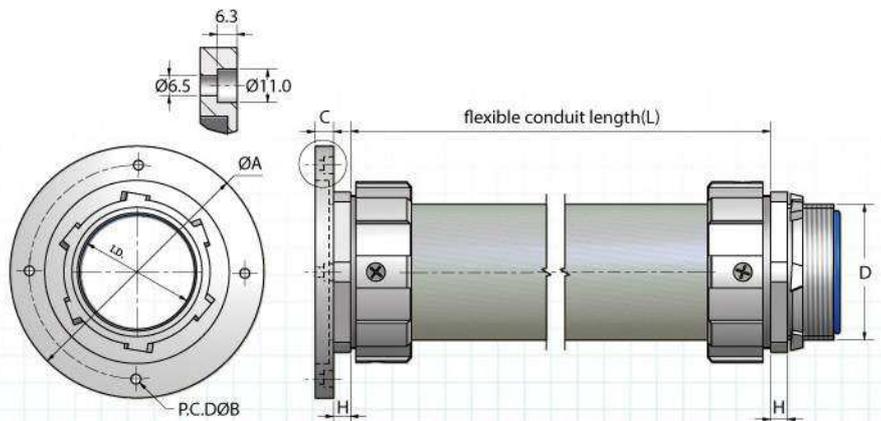
A9533

- IP65
- Type A2067 (galvanized steel core with PVC jacket) with #304 stainless steel braiding
- High tensile
- Liquid-tight



Flange

- A2066 inner core (interlocked) with #304 Stainless steel braiding.
- The suspension flange is assembled with flexible braiding conduit and the 355° rotation angle offers wide operating direction.
- For control panel of suspension machine.



H9033

Trade Size (inch)	Catalog Number	Dimension (mm)					D*	Bolt	Max. Bearing Weight (kgf)
		I.D.	A	B	C	H			
1-1/2"	H90331400	38.0	100.0	80.0	10.0	7.0	NPT 1-1/2	M6 x 4	200
2"	H90332000	49.5	120.0	95.0	10.0	7.0	NPT 2	M6 x 4	200
2-1/2"	H90332400	60.0	145.0	120.0	12.0	11.0	NPT 2-1/2 PT 2-1/2	M6 x 4	400
3"	H90333000	75.0	165.0	140.0	12.0	11.0	NPT 3 PT 3	M6 x 4	400

* Female connector available

Braiding Conduit

Trade Size (inch)	Catalog Number	Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
5/16"	A91330200	10.3	10.8	14.3	14.8	30	50
	A93330200	10.3	10.8	15.3	15.8	55	50
	A95330200	9.5	10.0	15.5	16.0	65	50
3/8"	A91330300	12.3	12.8	16.6	17.2	35	50
	A93330300	12.3	12.8	17.7	18.2	60	50
	A95330300	12.3	12.8	18.5	19.0	75	50
1/2"	A91330400	15.8	16.3	20.0	20.7	40	50
	A93330400	15.8	16.3	21.2	21.7	75	50
	A95330400	15.8	16.3	21.8	22.3	95	50
3/4"	A91330600	20.8	21.3	25.4	26.1	50	50
	A93330600	20.8	21.3	26.6	27.1	90	50
	A95330600	20.7	21.2	27.2	27.7	115	30
1"	A91331000	26.4	27.0	31.6	32.2	75	30
	A93331000	26.4	27.0	32.6	33.2	115	30
	A95331000	26.2	26.8	33.7	34.4	180	20
1-1/4"	A91331200	34.7	35.4	40.5	41.2	85	25
	A93331200	34.7	35.4	41.7	42.4	160	25
1-1/2"	A91331400	40.1	40.7	46.4	47.0	110	20
	A93331400	40.1	40.7	47.9	48.5	185	20
2"	A91332000	51.3	51.9	57.6	58.2	125	15
	A93332000	51.3	51.9	59.6	60.2	230	15
2-1/2"	A91332400	63.0	63.6	72.2	72.8	145	10
	A93332400	63.0	63.6	73.8	74.4	250	10
3"	A91333000	78.0	78.7	87.2	87.9	180	10
	A93333000	78.0	78.7	89.2	89.9	300	10
4"	A91334000	101.6	102.6	110.5	111.5	230	5
	A93334000	101.6	102.6	113.2	114.3	400	5

EMI/RFI Shielding Flexible Conduit

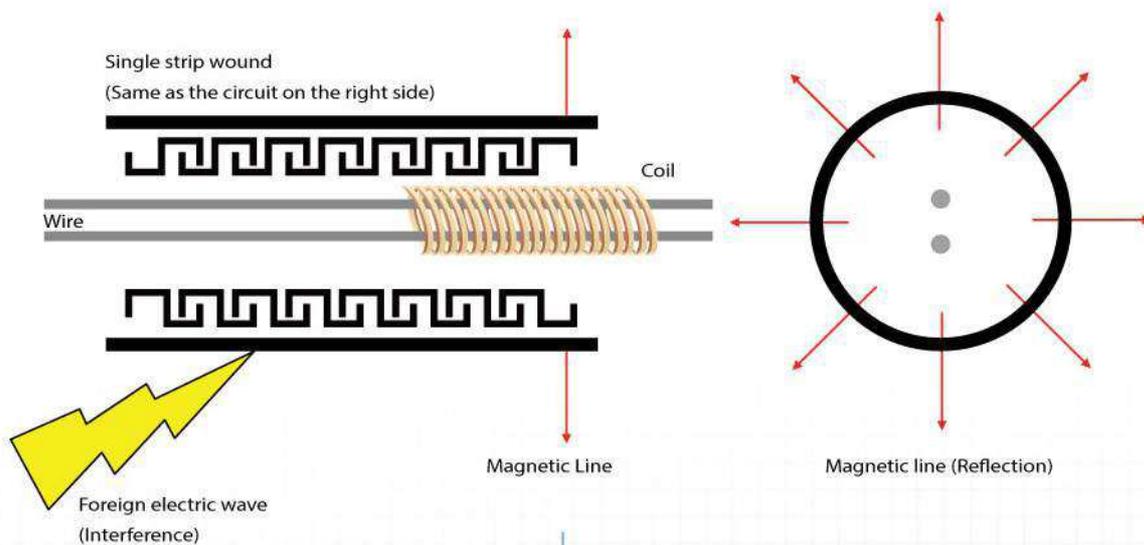
Reduced Electromagnetic Interference Enhanced Electromagnetic Shielding, Improved Electromagnetic Compatibility.

Since our development of "Electrical Appliance Signal Filter Conduit PAT. No. 39811" in 1993, BLISS keeps on developing conduit with better EMI shielding performance. Now, we're introducing the EMI series, providing the ability of screening electromagnetic waves and radio interference, addressing your diverse needs.

There are new electric devices appearing in the marketplace every day. In many circumstances, sensitive & sophisticated device circuit has to be isolated from any external interference, such as medical examine apparatus in hospital, and radar detecting instrument in military base, which should prevent from interferences of electromagnetic waves to show their top performances. Furthermore, in the regulations of CE, whatever electrical devices exporting to Europe must conform to their standards. The radiation of electrical device must be lower than the requirement to prevent the high electromagnetic radiation from endangering human body. BLISS flexible conduit is your best choice to decrease the electromagnetic radiation. Also, in the EU regulations of Electromagnetic Compatibility (EMC), electrical devices have to be radiation interference passive, let alone be active. By taking the advantage of BLISS EMI series, you are shielding yourself from the threats of electromagnetic radiations; meanwhile, the data transmission in your electrical devices won't have mutual interruptions with others. BLISS EMI series itself does not emit electromagnetic radiation, and it can screen the internal radiations inside of the conduit, and vice versa. Therefore, adding the protection of BLISS EMI conduit on your wiring system, you can enjoy not only the inherent fine wiring manageability of conduit, but also the eliminated electromagnetic emissions.

No more extra concerns for crosstalk.

Please use BLISS connectors to reach the ultimate screening efficiency. BLISS is your best one-stop solution.



What is EMI?

EMI Screen System (EMI= Electromagnetic Interference)
Apply flexible conduits to IT, telecommunication, and other electrical appliances:
Electromagnetic interference is also a kind of the environmental pollution. It can be an invisible killer to human body in the long run.

Description

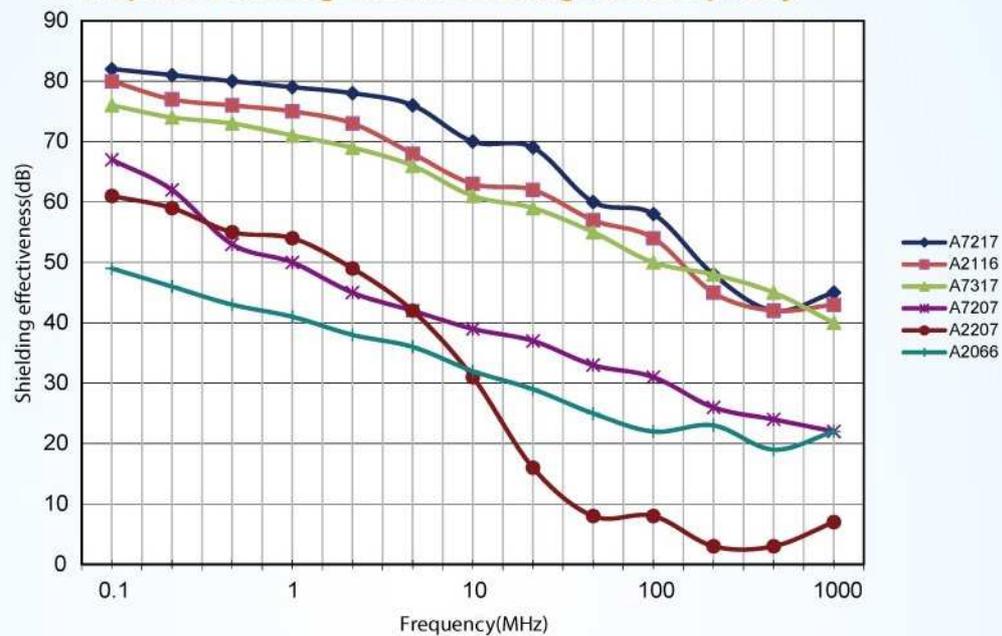
1. The flexible conduit covers the wires and signal lines as the figure above, will produce strong magnetic lines around the conduit. Reflecting the foreign electric waves will protect the inner signals instead of interfering the communication quality and there will be no disorder for the digital signals. This enlarges the EMS of electric equipments.
2. On the other hand, the power cord is the origin of electric interference, the electric interference reflects out by the power cord. Using the flexible conduit to screen it will lower the EMI to the minimum level.
3. **EMI + EMS = EMC.**



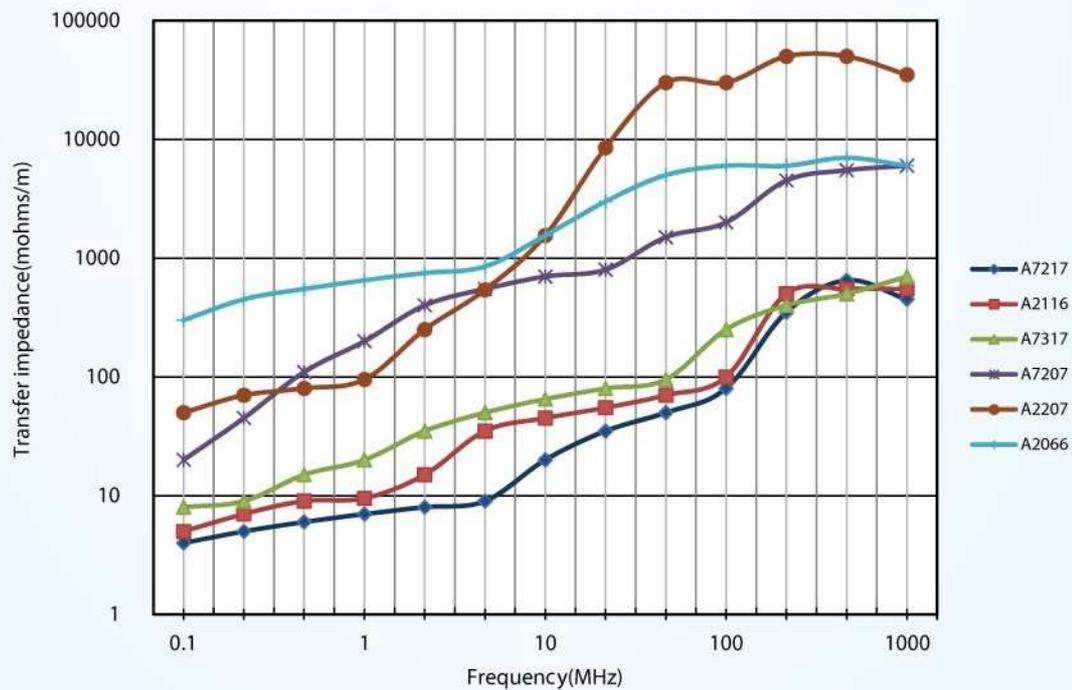
Third Party Tests for EMI Shielding Effectiveness

To offer reliable screening efficiency, BLISS requested trusted ERA Technology Ltd. in U.K. for third-party test to offer you the trustworthy EMI shielding efficiency data. This test is based on IEC 1196-1, with 1/2", 0.5m sample, and the frequency range is from 100 kHz to 1GHz. Please see the following graphics for the test results. A2066 is the flexible conduit without special shielding braiding, the shielding efficiency of which is from 21.6 to 51.8 dB. Among the six samples tested, A7217 which has the best shielding efficiency from 39.6 to 79.6dB.

Graph of Shielding Effectiveness Against Frequency.



Graph of Transfer Impedance Against Frequency.



EMI-Shielding Liquid-tight Flexible Conduit User Guide

A2066



- IP67
- UL Rating: Dry -20°C ~ 60°C, Wet 60°C, Oil 60°C
- UL listed
- Size 3/8"~1-1/4" have a continuous copper ground wire built into the core.
- For more information, please see page 05.

A2116



- IP67
- A2066 (UL type) +tinned copper braiding over 90% + RoHS and UL 360 compliant PVC jacket
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C
- Size 3/8"~1" have a continuous copper ground wire built into the core.

A7207



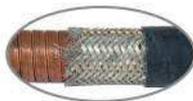
- IP67
- Copper strip interlocked core + RoHS and UL 360 compliant PVC jacket
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C

A7307



- IP67
- Brass strip interlocked core + RoHS and UL 360 compliant PVC jacket
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C

A7217



- IP67
- Copper strip interlocked core + tinned copper braiding over 90% + RoHS and UL 360 compliant PVC jacket
- Liquid-tight, oil-resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C

A7317



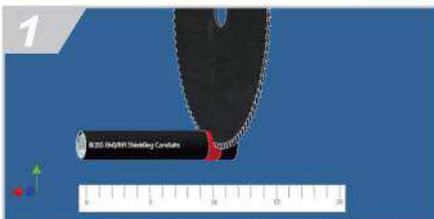
- IP67
- Brass strip interlocked core + tinned copper braiding over 90% + RoHS and UL 360 compliant PVC jacket
- Liquid-tight, oil resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C

A2207



- IP65
- Copper strip square-locked core + RoHS and UL 360 compliant PVC jacket
- Liquid-tight, oil resistant, flame retardant, and sunlight resistant.
- Temperature range: -20°C ~ 70°C

Assembly instructions



- Measure the needed length and mark, cut the conduit with circular sawing machine.



- Trim the burrs with scissors. Put the cap nut and gland packing onto the conduit.



- Measure the length of Ferrule sleeve (W) with calipers. Remove the terminal jacket of the conduit (cutting length = W).
- No need to remove the terminal jacket if no tinned copper braiding.



- Lock the ferrule along with the inner convolution of conduit to the bottoms.



- Assemble the cap nut, gland packing and ferrule, and lock onto the body. Tighten the cap nut and the body with wrench to make sure the liquid-tightness and grounding.



- Fittings installed on equipments shall apply individual bonding (The bonding shall not connect to the equipment's grounding conductor) to achieve the best shielding performance.

Trade Size (inch)	Catalog Number		Min. I.D. (mm)	Max. I.D. (mm)	Min. O.D. (mm)	Max. O.D. (mm)	Min. Bending Radius (mm)	Packing (m)
3/8"	A21160300		12.29	12.80	17.50	18.00	50.5	30
	A72070300	A73070300	12.29	12.80	17.50	18.00	50.5	30
	A72170300	A73170300	12.29	12.80	17.50	18.00	50.5	30
	A22070300		12.30	12.80	16.70	17.20	50.0	50
1/2"	A21160400		15.80	16.31	20.80	21.30	82.5	30
	A72070400	A73070400	15.80	16.31	20.80	21.30	82.5	30
	A72170400	A73170400	15.80	16.31	20.80	21.30	82.5	30
	A22070400		15.80	16.30	20.20	20.70	65.0	50
3/4"	A21160600		20.83	21.34	26.20	26.70	108.0	30
	A72070600	A73070600	20.83	21.34	26.20	26.70	108.0	30
	A72170600	A73170600	20.83	21.34	26.20	26.70	108.0	30
	A22070600		20.80	21.30	25.60	26.10	75.0	50
1"	A21161000		26.44	27.08	32.80	33.40	165.0	20
	A72071000	A73071000	26.44	27.08	32.80	33.40	165.0	20
	A72171000	A73171000	26.44	27.08	32.80	33.40	165.0	20
	A22071000		26.40	27.00	31.60	32.20	100.0	30

Plastic Flexible Conduit

N2017 | Nylon Flexible Conduit

■ IP65

RoHS



Features

- Material: Polyamide 6 (PA6)(Nylon 6)
- Europe Specification
- Temperature range: -30°C~105°C
- Light , flexible, weather resistant, high impact resistant and high pressure bearing ability
- For machinery, transportation facilities
- Superior sunlight resistance
- Halogen free, self extinguishing, UL 94 V2
- Best performance with fitting B0439/L0439

Trade Size (inch)	Catalog Number	I.D. (mm)	O.D. (mm)	Packing (m)
1/4"	N20170207	6.8	10.0	100
5/16"	N20170209	9.6	13.0	50
3/8"	N20170311	12.0	15.8	50
1/2"	N20170416	16.2	21.2	50
3/4"	N20170621	21.9	28.5	50
1"	N20171029	27.6	34.5	50
1-1/4"	N20171236	36.0	42.5	25
2"	N20172048	47.0	54.5	25

E2017 | PE Flexible Conduit

■ IP65



E2017



E2018

Features

- Material: Polyethylene (PE)
- Temperature range: -30°C ~ 80°C
- Light , flexible, fast installation
- Best performance with fitting B0419/L0419

Trade Size (inch)	Catalog Number	I.D. (mm)	O.D. (mm)	Packing (m)
3/8"	E20170300	13.8	17.8	100
1/2"	E20170400	17.2	22.0	100
3/4"	E20170600	21.2	26.0	100
1"	E20171000	28.7	34.0	50
1-1/4"	E20171200	36.0	42.0	50
1-1/2"	E20171400	40.0	48.0	50
2"	E20172000	52.0	60.0	50

Plastic Flexible Conduit

P2017 | PP Flexible Conduit

RoHS

Slit / Closed



Features

- Material: Polypropylene (PP)
- Temperature range: -25°C ~ 80°C
- Slit type is convenient for wiring arrangement and repairing
- Self extinguishing, meets UL 94 V2
- For automobile wiring

Trade Size (mm)	Catalog Number (Slit)	Catalog Number (Closed)	I.D. (mm)	O.D. (mm)	Packing (m)
Ø5	P20170501	P20170500	5.4	7.8	300
Ø7	P20170701	P20170700	7.4	10.2	300
Ø10	P20171001	P20171000	10.7	14.1	200
Ø13	P20171301	P20171300	13.2	17.5	200
Ø15	P20171501	P20171500	15.0	19.5	100
Ø19	P20171901	P20171900	19.3	23.8	100
Ø22	P20172201	P20172200	22.2	27.0	100
Ø25	P20172501	P20172500	25.0	30.0	50
Ø28	P20172801	P20172800	28.2	34.0	50
Ø32	P20173201	P20173200	32.4	38.0	50

Nylon Flexible Conduit

N2017

RoHS

Slit / Closed



Features

- Material: Polyamide 6 (PA6)(Nylon 6)
- Temperature range: -30°C ~ 105°C
- Slit type is convenient for wiring arrangement and repairing
- Self-extinguishing, meets UL 94 V2
- For automobile wiring
- Halogen free, weather resistant

Trade Size (mm)	Catalog Number (Slit)	Catalog Number (Closed)	I.D. (mm)	O.D. (mm)	Packing (m)
Ø5	N20170501	N20170500	5.4	7.8	300
Ø7	N20170701	N20170700	7.4	10.2	300
Ø10	N20171001	N20171000	10.7	14.1	200
Ø13	N20171301		13.2	17.5	200
Ø15	N20171501		15.0	19.5	100
Ø19	N20171901		19.3	23.8	100
Ø22	N20172201		22.2	27.0	100
Ø25	N20172501		25.0	30.0	50

Liquid-tight Flexible Conduit Connector



B2101



L2101



N2101

Features

UL/cULus Listed – File No. E136208

- Malleable iron, ductile cast iron or steel, zinc plated.
- For liquid-tight flexible metal conduit.
- According to NEC 350.6, LFMC and associated fittings shall be listed.

Applicable to dangerous areas Class 1 Division 2, Class 2 Division 1,2, and Class 3 Division 1,2.

Standards:

1. UL 514B
2. CSA C22.2 No. 18.3/NMX-J-017-ANCE
3. ANSI/NEMA FB1
4. ANSI/NFPA 70 NEC article 350



Locknut



O-ring



Insulating Liner



Body



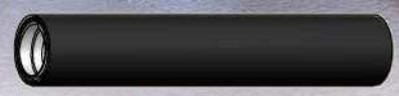
Ferrule



Gland Packing



Cap Nut



BLISS Flexible Conduit

B2101 Assembly Illustration:

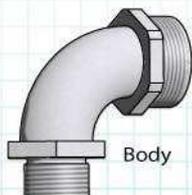
Locknut + O-ring + Insulating Liner + Body + Ferrule + Gland Packing + Cap Nut + BLISS Flexible Conduit



O-ring



Insulating Liner



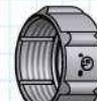
Body



Ferrule



Gland Packing



Cap Nut

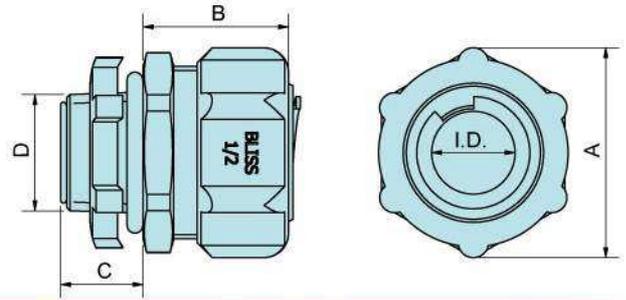


BLISS Flexible Conduit

L2141/L2161 Assembly Illustration:

O-ring + Insulating Liner + Body + Ferrule + Gland Packing + Cap Nut + BLISS Flexible Conduit

Straight Liquid-tight Flexible Conduit Connector



B2101

- NPT thread
- Furnished with locknut, insulating liner and Q-ring
- PT Thread available, type B2111, sizes: 2-1/2"~4"

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
NPT 1/2	3/8"	B21010300	11.5	29.0	22.5	14.5	21.0	100
NPT 1/2	1/2"	B21010400	14.5	34.5	22.5	14.5	21.0	100
NPT 3/4	3/4"	B21010600	19.5	41.5	28.0	16.0	26.4	50
NPT 1	1"	B21011000	25.0	46.0	31.5	19.5	33.3	50
NPT 1-1/4	1-1/4"	B21011200	33.5	55.5	34.0	20.5	41.9	25
NPT 1-1/2	1-1/2"	B21011400	38.5	63.2	36.5	24.5	47.8	20
NPT 2	2"	B21012000	49.5	76.0	44.5	27.0	59.6	10
NPT 2-1/2	2-1/2"	B21012400	60.0	99.2	58.5	36.5	72.7	1
PT 2-1/2	2-1/2"	B21112400 *	60.0	99.2	58.5	36.5	75.2	1
NPT 3	3"	B21013000	75.0	118.3	60.5	38.0	88.6	1
PT 3	3"	B21113000 *	75.0	118.3	60.5	38.0	87.9	1
NPT 4	4"	B21014000	97.0	145.3	58.0	41.0	114.0	1
PT 4	4"	B21114000 *	97.0	145.3	58.0	41.0	113.0	1

*Not UL listed



B2141

- Metric thread
- Furnished with O-ring and insulating liner
- No locknut attached

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
M16 x 1.5	3/8"	B21410316**	11.5	29.0	22.5	12.5	16.0	50
M20 x 1.5	3/8"	B21410320	11.5	29.0	22.5	14.5	20.0	50
M20 x 1.5	1/2"	B21410420	14.5	34.5	22.5	14.5	20.0	50
M25 x 1.5	3/4"	B21410625	19.5	41.5	28.0	16.0	25.0	50
M32 x 1.5	1"	B21411032	25.0	46.0	31.5	19.5	32.0	50
M40 x 1.5	1-1/4"	B21411240	33.5	55.5	34.0	20.5	40.0	25
M50 x 1.5	1-1/2"	B21411450	38.5	63.2	36.5	24.5	50.0	20
M63 x 1.5	2"	B21412063	49.5	76.0	44.5	27.0	63.0	10

** No insulating liner



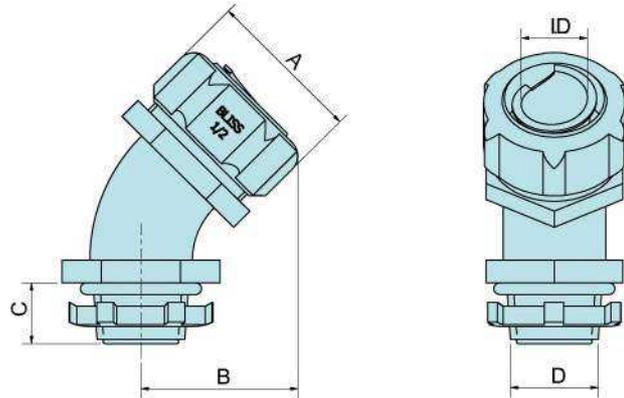
B2161

- PG thread
- Furnished with O-ring and insulating liner
- No locknut attached

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
PG9	3/8"	B21610309**	11.5	29.0	22.5	8.5	15.2	50
PG11	3/8"	B21610311	11.5	29.0	22.5	10.5	18.6	50
PG13.5	3/8"	B21610313	11.5	29.0	22.5	10.5	20.4	50
PG16	3/8"	B21610316	11.5	29.0	22.5	10.5	22.5	50
PG13.5	1/2"	B21610413	14.5	34.5	22.5	14.5	20.4	50
PG16	1/2"	B21610416	14.5	34.5	22.5	14.5	22.5	50
PG21	3/4"	B21610621	19.5	41.5	28.0	16.0	28.3	50
PG29	1"	B21611029	25.0	46.0	31.5	19.5	37.0	50
PG36	1-1/4"	B21611236	33.5	55.5	34.0	20.5	47.0	25
PG42	1-1/2"	B21611442	38.5	63.2	36.5	24.5	54.0	20
PG48	2"	B21612048	49.5	76.0	44.5	27.0	59.3	10

** No insulating liner

45° Liquid-tight Flexible Conduit Connector



N2101

- NPT thread
- Furnished with locknut, insulating liner and O-ring

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
NPT 1/2	3/8"	N21010300	11.5	29.0	31.0	14.5	21.0	50
NPT 1/2	1/2"	N21010400	14.5	34.5	32.0	14.5	21.0	50
NPT 3/4	3/4"	N21010600	19.5	41.5	37.0	16.0	26.4	25
NPT 1	1"	N21011000	25.0	46.0	46.5	19.5	33.3	25
NPT 1-1/4	1-1/4"	N21011200	33.5	55.5	53.0	20.5	41.9	15
NPT 1-1/2	1-1/2"	N21011400	38.5	63.2	60.0	24.5	47.8	10
NPT 2	2"	N21012000	49.5	76.0	75.0	27.0	59.6	5
NPT 2-1/2	2-1/2"	N21012400	60.0	99.2	105.0	36.5	72.7	1
NPT 3	3"	N21013000	75.0	118.3	120.0	38.0	88.6	1
NPT 4	4"	N21014000	97.0	145.3	140.0	41.0	114.0	1



N2141

- Metric thread
- Furnished with O-ring and insulating liner
- No locknut attached

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
M16x1.5	3/8"	N21410316**	11.5	29.0	31.0	12.5	16.0	50
M20x1.5	3/8"	N21410320	11.5	29.0	31.0	14.5	20.0	50
M20x1.5	1/2"	N21410420	14.5	34.5	32.0	14.5	20.0	50
M25x1.5	3/4"	N21410625	19.5	41.5	37.0	16.0	25.0	25
M32x1.5	1"	N21411032	25.0	46.0	46.5	19.5	32.0	25
M40x1.5	1-1/4"	N21411240	33.5	55.5	53.0	20.5	40.0	15
M50x1.5	1-1/2"	N21411450	38.5	63.2	60.0	24.5	50.0	10
M63x1.5	2"	N21412063	49.5	76.0	75.0	27.0	63.0	5

** No insulating liner



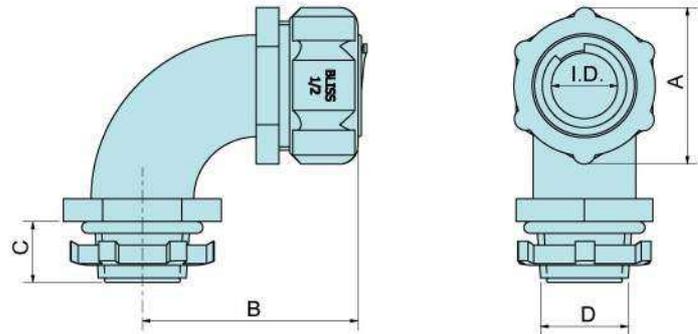
N2161

- PG thread
- Furnished with O-ring and insulating liner
- No locknut attached

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
PG9	3/8"	N21610309**	11.5	29.0	31.0	12.5	15.2	50
PG11	3/8"	N21610311	11.5	29.0	31.0	14.5	18.6	50
PG13.5	3/8"	N21610313	11.5	29.0	31.0	14.5	20.4	50
PG13.5	1/2"	N21610413	14.5	34.5	32.0	14.5	20.4	50
PG16	1/2"	N21610416	14.5	34.5	32.0	14.5	22.5	50
PG21	3/4"	N21610621	19.5	41.5	37.0	16.0	28.3	25
PG29	1"	N21611029	25.0	46.0	46.5	19.5	37.0	25
PG36	1-1/4"	N21611236	33.5	55.5	53.0	20.5	47.0	15
PG42	1-1/2"	N21611442	38.5	63.2	60.0	24.5	54.0	10
PG48	2"	N21612048	49.5	76.0	75.0	27.0	59.3	5

** No insulating liner

90° Liquid-tight Flexible Conduit Connector



L2101

- NPT thread
- Furnished with locknut, insulating liner and O-ring

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
NPT 1/2	3/8"	L21010300	11.5	29.0	40.0	14.5	21.0	50
NPT 1/2	1/2"	L21010400	14.5	34.5	45.0	14.5	21.0	50
NPT 3/4	3/4"	L21010600	19.5	41.5	53.0	16.0	26.4	25
NPT 1	1"	L21011000	25.0	46.0	59.0	19.5	33.3	25
NPT 1-1/4	1-1/4"	L21011200	33.5	55.5	69.0	20.5	41.9	15
NPT 1-1/2	1-1/2"	L21011400	38.5	63.2	77.0	24.5	47.8	10
NPT 2	2"	L21012000	49.5	76.0	95.0	27.0	59.6	5
NPT 2-1/2	2-1/2"	L21012400	60.0	99.2	169.5	36.5	72.7	1
NPT 3	3"	L21013000	75.0	118.3	192.5	38.0	88.6	1
NPT 4	4"	L21014000	97.0	145.3	238.0	41.0	114.0	1



L2141

- Metric thread
- Furnished with O-ring and insulating liner
- No locknut attached

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
M16 x 1.5	3/8"	L21410316**	11.5	29.0	40.0	12.5	16.0	50
M20 x 1.5	3/8"	L21410320	11.5	29.0	40.0	14.5	20.0	50
M20 x 1.5	1/2"	L21410420	14.5	34.5	45.0	14.5	20.0	50
M25 x 1.5	3/4"	L21410625	19.5	41.5	53.0	16.0	25.0	25
M32 x 1.5	1"	L21411032	25.0	46.0	59.0	19.5	32.0	25
M40 x 1.5	1-1/4"	L21411240	33.5	55.5	69.0	20.5	40.0	15
M50 x 1.5	1-1/2"	L21411450	38.5	63.2	77.0	24.5	50.0	10
M63 x 1.5	2"	L21412063	49.5	76.0	95.0	27.0	63.0	5

** No insulating liner



L2161

- PG thread
- Furnished with O-ring and insulating liner
- No locknut attached

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
PG9	3/8"	L21610309**	11.5	29.0	40.0	12.5	15.2	50
PG11	3/8"	L21610311	11.5	29.0	40.0	14.5	18.6	50
PG13.5	3/8"	L21610313	11.5	29.0	40.0	14.5	20.4	50
PG13.5	1/2"	L21610413	14.5	34.5	45.0	14.5	20.4	50
PG16	1/2"	L21610416	14.5	34.5	45.0	14.5	22.5	50
PG21	3/4"	L21610621	19.5	41.5	53.0	16.0	28.3	25
PG29	1"	L21611029	25.0	46.0	59.0	19.5	37.0	25
PG36	1-1/4"	L21611236	33.5	55.5	69.0	20.5	47.0	15
PG42	1-1/2"	L21611442	38.5	63.2	77.0	24.5	54.0	10
PG48	2"	L21612048	49.5	76.0	95.0	27.0	59.3	5

** No insulating liner

Female Threaded Combination Coupling


C2101

Features

- Malleable iron, ductile cast iron or steel, zinc plated.
- For connecting rigid steel conduit (RSC) with flexible conduit
- UL/cULus Listed – File No. E136208
- UL Listed Trade Size: 3/4"~4", meet UL 514B and CSA : C22.2 No.18

Standards:

1. UL 514B
2. CSA C22.2 No. 18.3/NMX-J-017-ANCE
3. ANSI/NEMA FB1
4. ANSI/NFPA 70 NEC article 350



RSC

Body

Ferrule

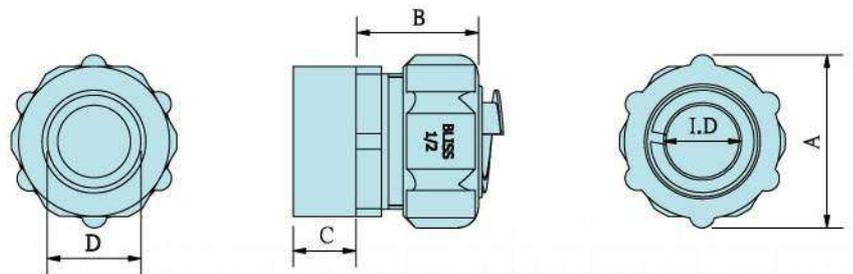
Gland Packing

Cap Nut

BLISS Flexible Conduit

C2101 Assembly Illustration:

RSC + Body + Ferrule + Gland Packing + Cap Nut + BLISS Flexible Conduit


C2101


- NPT Thread, female threaded
- C2111 PT thread, female threaded available, trade size 2-1/2"~4".

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
NPT 1/2	1/2"	C21010400*	14.5	34.5	22.5	12.5	18.6	50
NPT 3/4	3/4"	C21010600	19.5	41.5	28.0	14.0	24.1	50
NPT 1	1"	C21011000	25.0	46.0	31.5	17.5	30.3	25
NPT 1-1/4	1-1/4"	C21011200	33.5	55.5	34.0	18.0	39.0	25
NPT 1-1/2	1-1/2"	C21011400	38.5	63.2	36.5	21.5	44.8	20
NPT 2	2"	C21012000	49.5	76.0	44.5	24.0	56.7	10
NPT 2-1/2	2-1/2"	C21012400	60.0	99.2	58.5	33.5	67.6	1
PT 2-1/2	2-1/2"	C21112400*	60.0	99.2	58.5	33.5	72.2	1
NPT 3	3"	C21013000	75.0	118.3	60.5	35.0	83.5	1
PT 3	3"	C21113000*	75.0	118.3	60.5	35.0	84.9	1
NPT 4	4"	C21014000	97.0	145.3	58.0	38.0	108.9	1
PT 4	4"	C21114000*	97.0	145.3	58.0	38.0	110.1	1

*Not UL Listed

Threadless Combination Coupling

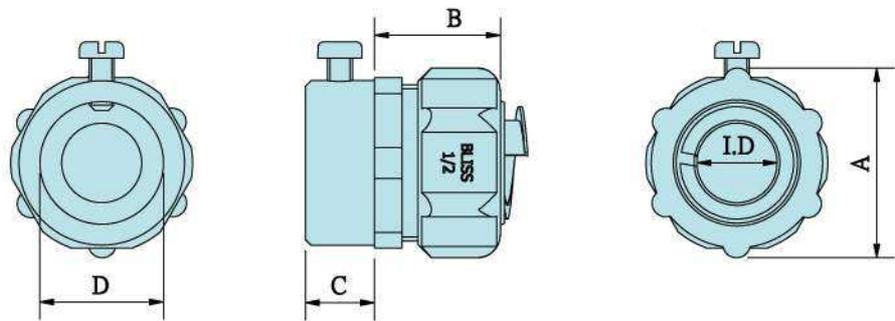
Features

- Malleable iron or ductile cast iron, zinc plated.



E2101/P2101 Assembly Illustration

EMT/PVC/RSC Conduit + Screw + Body + Ferrule + Gland Packing + Cap Nut + BLISS Flexible Conduit



E2101

- For connecting EMT with flexible conduit
- Threadless, furnished with screw
- 2-1/2"~4" same as P2101

Trade Size (inch)	Catalog Number	Dimension (mm)					EMT	Standard Packing (pcs)
		I.D.	A	B	C	D	CNS 2606-C4060 JIS C 8305	
1/2"	E21010400	14.5	34.5	22.5	12.5	19.6	E19	50
3/4"	E21010600	19.5	41.5	28.0	14.0	25.9	E25	50
1"	E21011000	25.0	46.0	31.5	17.5	32.3	E31	25
1-1/4"	E21011200	33.5	55.5	34.0	18.0	38.6	E39	25
1-1/2"	E21011400	38.5	63.2	36.5	21.5	51.3	E51	20
2"	E21012000	49.5	76.0	44.5	24.0	64.0	E63	10



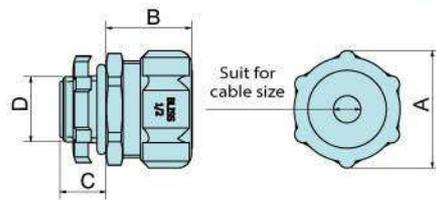
P2101

- For connecting RSC/PVC conduit with flexible conduit
- Threadless, furnished with screw

Trade Size (inch)	Catalog Number	Dimension (mm)					RSC	PVC	Standard Packing (pcs)
		I.D.	A	B	C	D	CNS 2606-C4060 JIS C 8305	CNS 1302-K3006	
1/2"	P21010400	14.5	34.5	22.5	12.5	22.4	G16	16	50
3/4"	P21010600	19.5	41.5	28.0	14.0	27.2	G22	20	50
1"	P21011000	25.0	46.0	31.5	17.5	34.5	G28	28	25
1-1/4"	P21011200	33.5	55.5	34.0	18.0	42.6	G36	35	25
1-1/2"	P21011400	38.5	63.2	36.5	21.5	48.6	G42	41	20
2"	P21012000	49.5	76.0	44.5	24.0	60.8	G54	52	10
2-1/2"	P21012400	60.0	99.2	58.5	33.5	76.8	G70	65	1
3"	P21013000	75.0	118.3	60.5	35.0	90.0	G82	80	1
4"	P21014000	97.0	145.3	58.0	38.0	115.0	G104	100	1

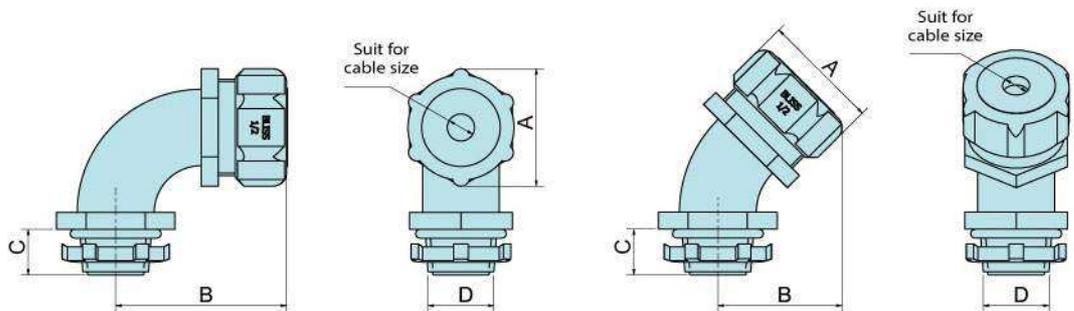
Cable Gland

- Malleable iron, ductile cast iron or steel, zinc plated
- Furnished with O-ring and insulating liner
- NPT thread
- Metric thread, PG thread and PF thread (die cast zinc) available by request.
- For fixing power cable.



B7131

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)				Applicable wire (mm)	Standard Packing (pcs)
			A	B	C	D		
NPT 1/2	3/8"	B71310304	29.0	22.5	14.5	21.0	4 - 8	100
NPT 1/2	3/8"	B71310308	29.0	22.5	14.5	21.0	8 - 12	100
NPT 1/2	3/8"	B71310312	29.0	22.5	14.5	21.0	12 - 13	100
NPT 3/4	3/4"	B71310614	41.5	28.0	16.0	26.4	14 - 18	50
NPT 1	1"	B71311018	46.0	31.5	19.5	33.3	18 - 24	50
NPT 1-1/4	1-1/4"	B71311224	55.5	34.0	20.5	41.9	24 - 32	25



L7131

N7131



L7131

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)				Applicable wire (mm)	Standard Packing (pcs)
			A	B	C	D		
NPT 1/2	3/8"	L71310304	29.0	40.0	14.5	21.0	4 - 8	50
NPT 1/2	3/8"	L71310308	29.0	40.0	14.5	21.0	8 - 12	50
NPT 1/2	3/8"	L71310312	29.0	40.0	14.5	21.0	12 - 13	50
NPT 3/4	3/4"	L71310614	41.5	53.0	16.0	26.4	14 - 18	25
NPT 1	1"	L71311018	46.0	59.0	19.5	33.3	18 - 24	25
NPT 1-1/4	1-1/4"	L71311224	55.5	69.0	20.5	41.9	24 - 32	15

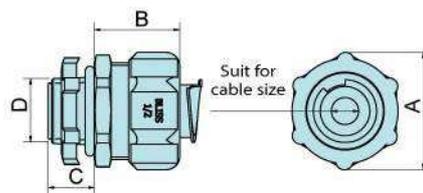


N7131

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)				Applicable wire (mm)	Standard Packing (pcs)
			A	B	C	D		
NPT 1/2	3/8"	N71310304	29.0	31.0	14.5	21.0	4 - 8	50
NPT 1/2	3/8"	N71310308	29.0	31.0	14.5	21.0	8 - 12	50
NPT 1/2	3/8"	N71310312	29.0	31.0	14.5	21.0	12 - 13	50
NPT 3/4	3/4"	N71310614	41.5	37.0	16.0	26.4	14 - 18	25
NPT 1	1"	N71311018	46.0	46.5	19.5	33.3	18 - 24	25
NPT 1-1/4	1-1/4"	N71311224	55.5	53.0	20.5	41.9	24 - 32	15

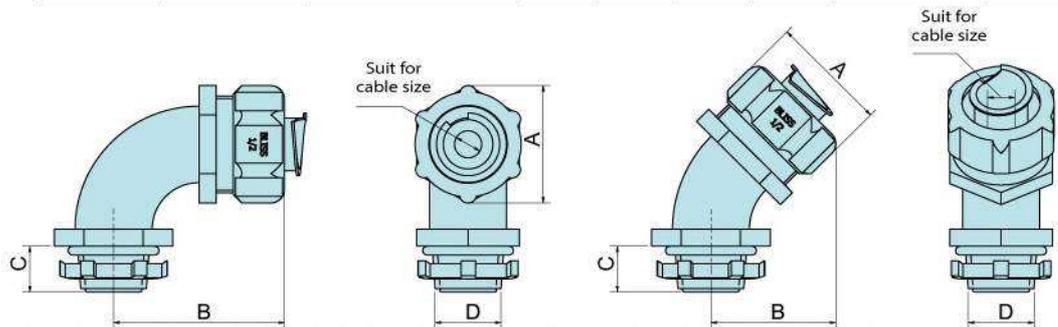
Cable Strain Relief Connector

- Malleable iron, ductile cast iron or steel, zinc plated.
- Furnished with O-ring and insulating liner
- NPT thread
- Metric thread, PG thread, PF thread (die cast zinc) are optional
- For fixing flexible conduit and cable



B6131

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)				Applicable wire (mm)	Standard Packing (pcs)
			A	B	C	D		
NPT 1/2	3/8"	B61310304	29.0	22.5	14.5	21.0	4 - 8	100
NPT 1/2	3/8"	B61310308	29.0	22.5	14.5	21.0	8 - 10	100
NPT 3/4	3/4"	B61310614	41.5	28.0	16.0	26.4	14 - 18	50
NPT 1	1"	B61311018	46.0	31.5	19.5	33.3	18 - 24	50
NPT 1-1/4	1-1/4"	B61311224	55.5	34.0	20.5	41.9	24 - 32	25



L6131

L6131

N6131

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)				Applicable wire (mm)	Standard Packing (pcs)
			A	B	C	D		
NPT 1/2	3/8"	L61310304	29.0	40.0	14.5	21.0	4 - 8	50
NPT 1/2	3/8"	L61310308	29.0	40.0	14.5	21.0	8 - 10	50
NPT 3/4	3/4"	L61310614	41.5	53.0	16.0	26.4	14 - 18	25
NPT 1	1"	L61311018	46.0	59.0	19.5	33.3	18 - 24	25
NPT 1-1/4	1-1/4"	L61311224	55.5	69.0	20.5	41.9	24 - 32	15



N6131

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)				Applicable wire (mm)	Standard Packing (pcs)
			A	B	C	D		
NPT 1/2	3/8"	N61310304	29.0	31.0	14.5	21.0	4 - 8	50
NPT 1/2	3/8"	N61310308	29.0	31.0	14.5	21.0	8 - 10	50
NPT 3/4	3/4"	N61310614	41.5	37.0	16.0	26.4	14 - 18	25
NPT 1	1"	N61311018	46.0	46.5	19.5	33.3	18 - 24	25
NPT 1-1/4	1-1/4"	N61311224	55.5	53.0	20.5	41.9	24 - 32	15

Liquid-tight Flexible Conduit Connector

■ Die cast zinc (zinc alloy), zinc plated.



B2182

Features

UL/cULus Listed – File No. E136208

- Die cast zinc (zinc alloy), zinc plated.
- For liquid-tight flexible metal conduit.
- According to NEC 350.6, flexible metal conduit assembled with connector are able to apply on dangerous areas Class 1 Division 2, Class 2 Division 1,2, and Class 3 Division 1,2.

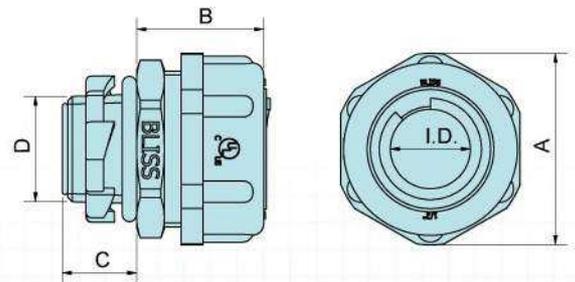
Standards:

1. UL 514B
2. CSA C22.2 No. 18.3/NMX-J-017-ANCE
3. ANSI/NEMA FB1
4. ANSI/NFPA 70 NEC article 350

B2182 Assembly illustration :



Locknut O-ring Insulating Liner Body Ferrule Gland Packing Cap Nut BLISS Flexible Conduit



B2182

- NPT thread
- Furnished with locknut, insulating liner and O-ring

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
NPT 1/2	3/8"	B21820300	11.5	29.0	22.0	14.5	21.0	100
NPT 1/2	1/2"	B21820400	14.5	35.0	22.0	14.5	21.0	100
NPT 3/4	3/4"	B21820600	19.5	42.0	27.0	16.0	26.4	50
NPT 1	1"	B21821000	25.0	48.5	31.0	19.5	33.3	50
NPT 1-1/4	1-1/4"	B21821200	33.5	59.0	34.5	20.5	41.9	25
NPT 1-1/2	1-1/2"	B21821400	38.5	68.0	36.5	24.5	47.8	20
NPT 2	2"	B21822000	49.5	82.5	43.0	27.0	59.6	10
NPT 2-1/2	2-1/2"	B21822400 *	60.0	93.5	36.0	27.0	72.7	1
NPT 3	3"	B21823000 *	75.0	110.0	36.0	27.0	88.6	1
NPT 4	4"	B21824000 *	97.0	137.0	36.0	27.0	114.0	1

*Not UL Listed

REACH RoHS IP67

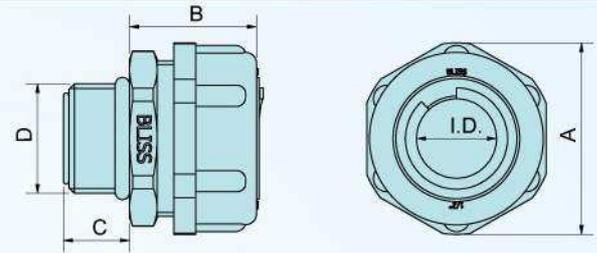
Liquid-tight Flexible Conduit Connector

■ Die cast zinc (zinc alloy), zinc plated.



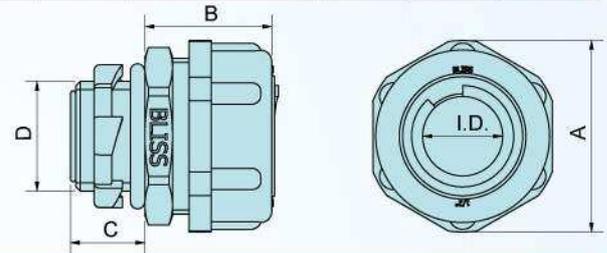
B2142

- Metric thread
- Furnished with O-ring and insulating liner
- No locknut attached (optional)



Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
M16 x 1.5	3/8"	B21420316**	11.5	29.0	22.0	11.0	16.0	50
M20 x 1.5	1/2"	B21420420	14.5	35.0	22.0	12.0	20.0	50
M25 x 1.5	3/4"	B21420625	19.5	42.0	27.0	16.0	25.0	50
M32 x 1.5	1"	B21421032	25.0	48.5	31.0	18.0	32.0	50

** No insulating liner



B2102

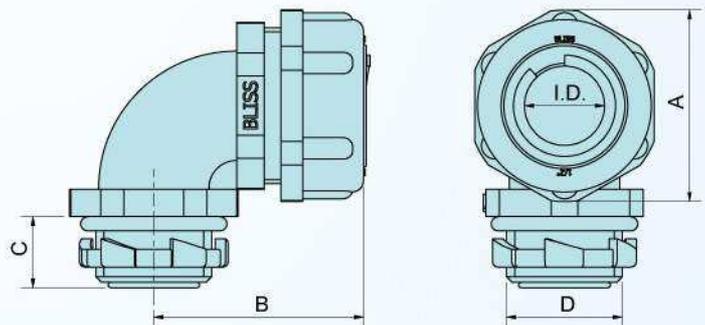
- PF thread
- With locknut, O-ring and insulating liner
- For liquid-tight flexible metal conduit

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
PF 1/2	3/8"	B21020300	11.5	29.0	22.0	12.0	21.0	100
PF 1/2	1/2"	B21020400	14.5	35.0	22.0	12.0	21.0	100
PF 3/4	3/4"	B21020600	19.5	42.0	27.0	16.0	26.4	50
PF 1	1"	B21021000	25.0	48.5	31.0	18.0	33.3	50
PF 1-1/4	1-1/4"	B21021200	33.5	59.0	34.5	20.5	41.9	25
PF 1-1/2	1-1/2"	B21021400	38.5	68.0	36.5	24.5	47.8	20
PF 2	2"	B21022000	49.5	82.5	43.0	27.0	59.6	10
PF 2-1/2	2-1/2"	B21022400	60.0	93.5	36.0	27.0	75.2	1
PF 3	3"	B21023000	75.0	110.0	36.0	27.0	87.9	1
PF 4	4"	B21024000	97.0	137.0	36.0	27.0	113.0	1



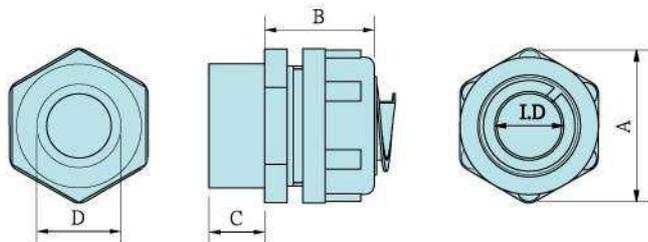
L2102

- 90° connector
- PF thread
- With locknut, O-ring and insulating liner
- For liquid-tight flexible metal conduit



Thread	Trade Size (inch)	Catalog Number	Dimension (mm)					Standard Packing (pcs)
			I.D.	A	B	C	D	
PF 1/2	3/8"	L21020300	11.5	29.0	39.0	11.5	21.0	50
PF 1/2	1/2"	L21020400	14.5	35.0	39.0	12.5	21.0	50
PF 3/4	3/4"	L21020600	19.5	42.0	45.0	17.5	26.4	25
PF 1	1"	L21021000	25.0	48.5	57.0	18.0	33.3	25

Liquid-tight Flexible Conduit Connector



C2102

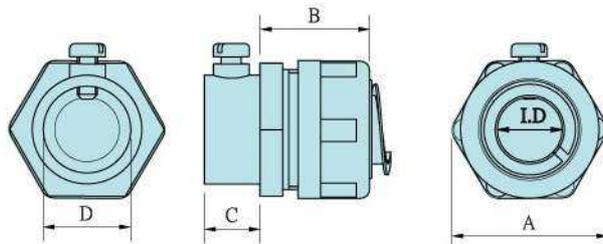
- Female threaded
- For connecting male threaded rigid steel conduit with flexible conduit

Thread	Conduit Size (inch)	Catalog Number	Dimension (mm)					Packing (pcs)
			I.D.	A	B	C	D	
PF 1/2	1/2"	C21020400	14.5	35.0	22.0	10.5	18.6	50
PF 3/4	3/4"	C21020600	19.5	42.0	27.0	14.0	24.1	50
PF 1	1"	C21021000	25.0	48.5	31.0	15.5	30.3	25
PF 1-1/4	1-1/4"	C21021200	33.5	59.0	34.5	18.0	39.0	25
PF 1-1/2	1-1/2"	C21021400	38.5	68.0	36.5	21.5	44.8	20
PF 2	2"	C21022000	49.5	82.5	43.0	24.0	56.7	10
PF 2-1/2	2-1/2"	C21022400	60.0	93.5	36.0	24.0	72.2	1
PF 3	3"	C21023000	75.0	110.0	36.0	24.0	84.9	1
PF 4	4"	C21024000	97.0	137.0	36.0	24.0	110.1	1



E2102

- Threadless, furnished with screw
- For connecting EMT with flexible conduit



Conduit Size (inch)	Catalog Number	Dimension (mm)					EMT CNS 2606-C4060 JIS C 8305	Packing (pcs)
		I.D.	A	B	C	D		
1/2"	E21020400	14.5	35.0	22.0	10.5	19.6	E19	50
3/4"	E21020600	19.5	42.0	27.0	14.0	25.9	E25	50
1"	E21021000	25.0	48.5	31.0	15.5	32.3	E31	25
1-1/4"	E21021200	33.5	59.0	34.5	18.0	38.6	E39	25
1-1/2"	E21021400	38.5	68.0	36.5	21.5	51.3	E51	20
2"	E21022000	49.5	82.5	43.0	24.0	64.0	E63	10

*2-1/2" ~4" E2102 same as P2102.

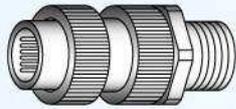


P2102

- Threadless, furnished with screw
- For connecting RSC/PVC conduit with flexible conduit

Conduit Size (inch)	Catalog Number	Dimension (mm)					RSG CNS 2606-C4060 JIS C 8305	PVC CNS 1302-K3006	Packing (pcs)
		I.D.	A	B	C	D			
1/2"	P21020400	14.5	35.0	22.0	10.5	22.4	G16	16	50
3/4"	P21020600	19.5	42.0	27.0	14.0	27.2	G22	20	50
1"	P21021000	25.0	48.5	31.0	15.5	34.5	G28	28	25
1-1/4"	P21021200	33.5	59.0	34.5	18.0	42.6	G36	35	25
1-1/2"	P21021400	38.5	68.0	36.5	21.5	48.6	G42	41	20
2"	P21022000	49.5	82.5	43.0	24.0	60.8	G54	52	10
2-1/2"	P21022400	60.0	93.5	36.0	24.0	76.8	G70	65	1
3"	P21023000	75.0	110.0	36.0	24.0	90.0	G82	80	1
4"	P21024000	97.0	137.0	36.0	24.0	115.0	G104	100	1

MS Connector Adapter



MS CONNECTOR



Body



Ferrule



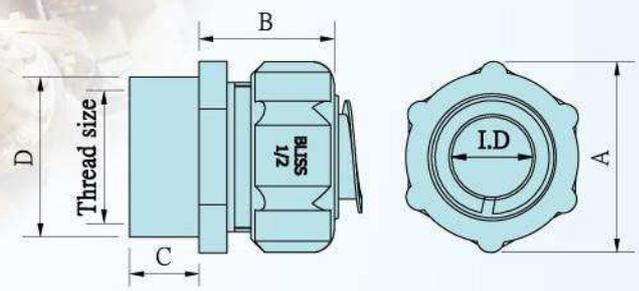
Gland Packing



Cap Nut



BLISS Flexible Conduit



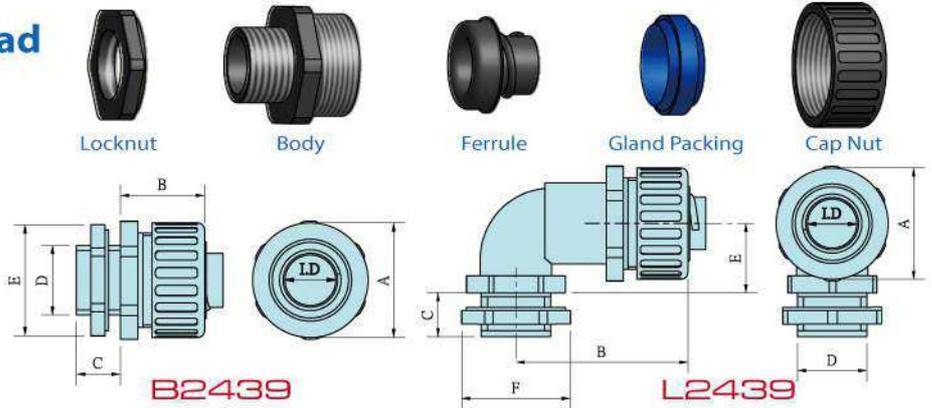
C8096

- Steel, zinc plated.
- For connecting MS connector with flexible conduit

Trade Size (inch)	Catalog Number	MS Size	Dimension (mm)							MS-3057	Standard Packing (pcs)
			I.D.	A	B	C	D	Thread size (2B) (mm)			
3/8"	C80960310	10SL, 12S	11.5	29.0	22.5	12.0	21.0	5/8" – 24UNEF	14.8	4A	100
3/8"	C80960314	14S	11.5	29.0	22.5	12.0	24.0	3/4" – 20UNEF	17.7	6A	100
3/8"	C80960318	18	11.5	29.0	22.5	12.0	29.0	1" – 20UNEF	24.1	10A	100
1/2"	C80960416	16, 16S	14.5	34.5	22.5	12.0	27.0	7/8" – 20UNEF	20.9	8A	100
1/2"	C80960418	18	14.5	34.5	22.5	12.0	29.0	1" – 20UNEF	24.1	10A	100
1/2"	C80960420	20, 22	14.5	34.5	22.5	12.0	35.0	1-3/16" – 18UNEF	28.7	12A	100
3/4"	C80960618	18	19.5	41.5	28.0	12.0	30.0	1" – 20UNEF	24.1	10A	50
3/4"	C80960620	20, 22	19.5	41.5	28.0	12.0	35.0	1-3/16" – 18UNEF	28.7	12A	50
3/4"	C80960624	24, 28	19.5	41.5	28.0	12.0	41.0	1-7/16" – 18UNEF	35.1	16A	50
1"	C80961020	20, 22	25.0	46.0	31.5	12.0	35.0	1-3/16" – 18UNEF	28.7	12A	50
1"	C80961024	24, 28	25.0	46.0	31.5	12.0	41.0	1-7/16" – 18UNEF	35.1	16A	50

Nylon Connector - PF Thread

- Polyamide 6 (PA6)(Nylon 6), meets UL 94 V2
- PF thread
- Light
- Weather resistant
- For type A2017, A2018 flexible metal conduit
- Temperature range: -10°C ~ 120°C
- Color: Black, gray
- IP65



B2439



L2439

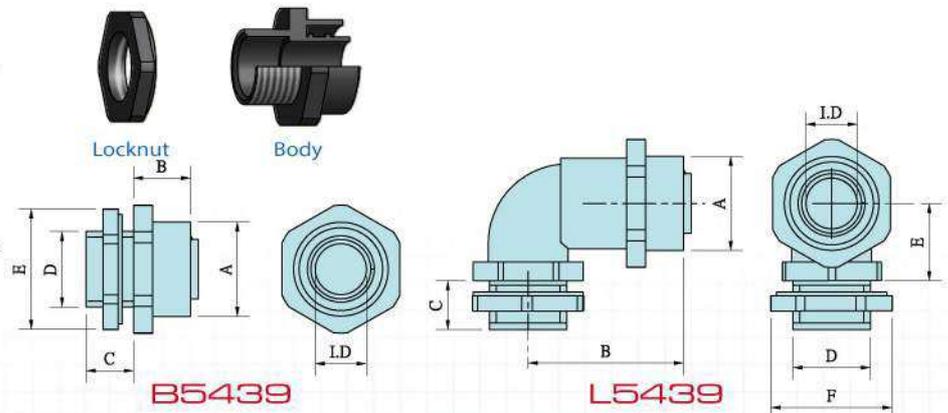
Thread	Trade Size (inch)	Catalog Number		Dimension (mm)						Standard Packing (pcs)
		Black	Gray	ID	A	B	C	D	E	
PF 1/2	3/8"	B24390300	B25390300	10.5	28.0	23.0	13.0	21.0	32.0	100
PF 1/2	1/2"	B24390400	B25390400	13.5	33.0	23.0	13.0	21.0	32.0	100
PF 3/4	3/4"	B24390600	B25390600	18.5	39.0	28.0	13.0	26.4	40.0	50
PF 1	1"	B24391001*	B25391001*	25.0	46.0	31.0	15.0	33.3	47.5	50
PF 1-1/4	1-1/4"	B24391201*	B25391201*	33.5	55.5	33.0	17.0	41.9	55.5	25

*Steel Ferrule

Thread	Trade Size (inch)	Catalog Number		Dimension (mm)						Standard Packing (pcs)	
		Black	Gray	ID	A	B	C	D	E		F
PF 1/2	3/8"	L24390300	L25390300	10.5	28.0	44.0	13.0	21.0	20.0	32.0	50
PF 1/2	1/2"	L24390400	L25390400	13.5	33.0	44.0	13.0	21.0	20.0	32.0	50
PF 3/4	3/4"	L24390600	L25390600	18.5	39.0	52.0	13.0	26.4	25.0	40.0	50

Nylon Screw-in Connector

- Polyamide 6 (PA6)(Nylon 6), meets UL 94 V2
- Ferrule integrated with body.
- PF thread
- Light, fast-installation
- Weather resistant
- For type A2017, A2018, A2012 flexible metal conduit
- Temperature range: -10°C ~ 120°C
- IP50



B5439



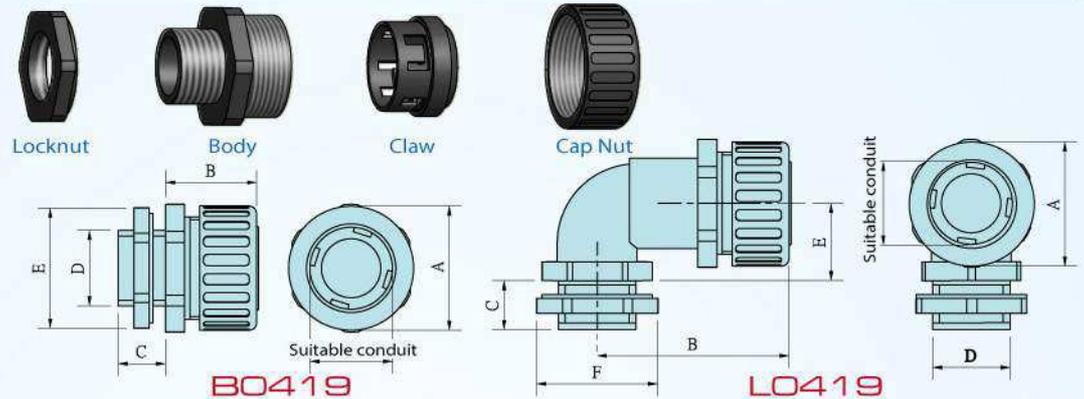
L5439

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)						Standard Packing (pcs)
			ID	A	B	C	D	E	
PF 1/2	3/8"	B54390300	10.5	21.5	15.0	13.0	21.0	32.0	100
PF 1/2	1/2"	B54390400	13.5	25.0	15.0	13.0	21.0	32.0	100
PF 3/4	3/4"	B54390600	18.5	31.0	18.0	13.0	26.4	40.0	50

Thread	Trade Size (inch)	Catalog Number	Dimension (mm)						Standard Packing (pcs)	
			ID	A	B	C	D	E		F
PF 1/2	3/8"	L54390300	10.5	21.5	36.0	13.0	21.0	20.0	32.0	50
PF 1/2	1/2"	L54390400	13.5	25.0	36.0	13.0	21.0	20.0	32.0	50
PF 3/4	3/4"	L54390600	18.5	31.0	41.5	13.0	26.4	25.0	40.0	25

Nylon Connector

- Polyamide 6 (PA6)(Nylon 6), meets UL 94 V2.
- PF thread
- Light
- Weather resistant
- Temperature range: -10°C ~ 120°C °
- Color: Black, gray



B0419

- For type E2017 PE flexible conduit

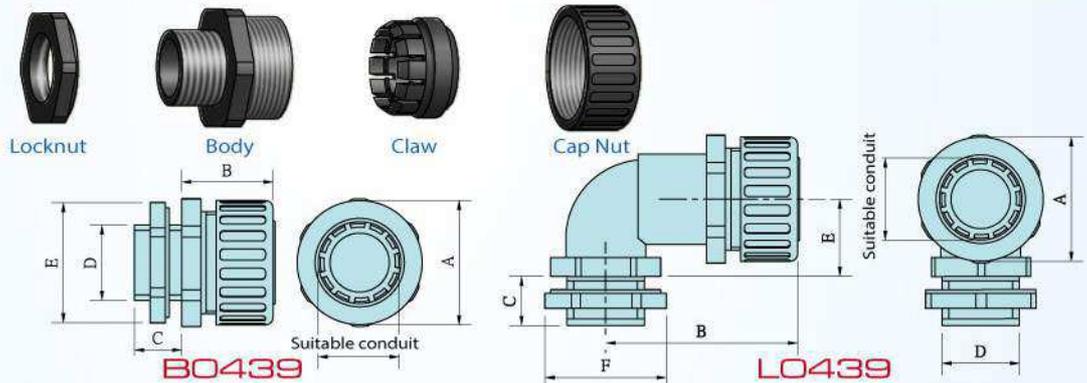


L0419

- For type E2017 PE flexible conduit

Thread	Trade Size (inch)	Catalog Number		Dimension (mm)					For diameter (mm)	Standard Packing (pcs)
		Black	Gray	A	B	C	D	E		
PF 1/2	3/8"	B04190300	B05190300	28.0	23.0	13.0	21.0	32.0	17.8	100
PF 1/2	1/2"	B04190400	B05190400	33.0	23.0	13.0	21.0	32.0	22.0	100
PF 3/4	3/4"	B04190600	B05190600	39.0	28.0	13.0	26.4	40.0	26.0	50
PF 1	1"	B04191000	B05191000	46.0	31.0	15.0	33.3	47.5	34.0	50
PF 1-1/4	1-1/4"	B04191200	B05191200	55.5	33.0	17.0	41.9	55.5	42.0	25

Thread	Trade Size (inch)	Catalog Number		Dimension (mm)						For diameter (mm)	Standard Packing (pcs)
		Black	Gray	A	B	C	D	E	F		
PF 1/2	3/8"	L04190300	L05190300	28.0	44.0	13.0	21.0	20.0	32.0	17.8	50
PF 1/2	1/2"	L04190400	L05190400	33.0	44.0	13.0	21.0	20.0	32.0	22.0	50
PF 3/4	3/4"	L04190600	L05190600	39.0	52.0	13.0	26.4	25.0	40.0	26.0	25



B0439

- For type N2017 nylon flexible conduit



L0439

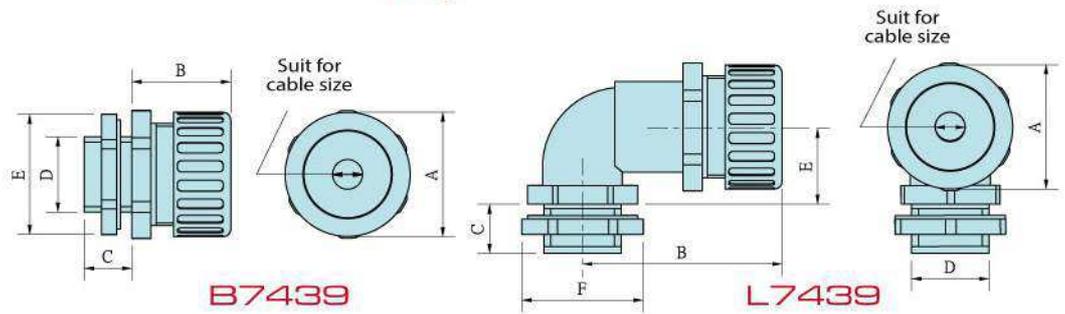
- For type N2017 nylon flexible conduit

Thread	Trade Size (inch)	Catalog Number		Dimension (mm)					For diameter (mm)	Standard Packing (pcs)
		Black	Gray	A	B	C	D	E		
PF 1/2	5/16"	B04390200	B05390200	28.0	23.0	13.0	21.0	32.0	13.0	100
PF 1/2	3/8"	B04390300	B05390300	28.0	23.0	13.0	21.0	32.0	15.8	100
PF 1/2	1/2"	B04390400	B05390400	33.0	23.0	13.0	21.0	32.0	21.2	100
PF 3/4	3/4"	B04390600	B05390600	39.0	28.0	13.0	26.4	40.0	28.5	50
PF 1	1"	B04391000	B05391000	46.0	31.0	15.0	33.3	47.5	34.5	50
PF 1-1/4	1-1/4"	B04391200	B05391200	55.5	33.0	17.0	41.9	55.5	42.5	25

Thread	Trade Size (inch)	Catalog Number		Dimension (mm)						For diameter (mm)	Standard Packing (pcs)
		Black	Gray	A	B	C	D	E	F		
PF 1/2	5/16"	L04390200	L05390200	28.0	44.0	13.0	21.0	20.0	32.0	13.0	50
PF 1/2	3/8"	L04390300	L05390300	28.0	44.0	13.0	21.0	20.0	32.0	15.8	50
PF 1/2	1/2"	L04390400	L05390400	33.0	44.0	13.0	21.0	20.0	32.0	21.2	50
PF 3/4	3/4"	L04390600	L05390600	39.0	52.0	13.0	26.4	25.0	40.0	28.5	25

Nylon Cable Gland

- Polyamide 6 (PA6)(Nylon 6), meets UL 94 V2.
- PF thread
- Light
- Weather resistant
- Temperature range: -10°C ~ 120°C °
- Color: Black, gray



B7439

Thread	Trade Size (inch)	Catalog Number		Dimension (mm)					For diameter (mm)	Standard Packing (pcs)
		Black	Gray	A	B	C	D	E		
PF 1/2	3/8"	B74390306	B75390306	28.0	23.0	13.0	21.0	32.0	6 - 8	100
PF 1/2	3/8"	B74390309	B75390309	28.0	23.0	13.0	21.0	32.0	9 - 12	100
PF 1/2	3/8"	B74390312	B75390312	28.0	23.0	13.0	21.0	32.0	12 - 15	100
PF 3/4	3/4"	B74390615	B75390615	39.0	28.0	13.0	26.4	40.0	15 - 18	50



L7439

Thread	Trade Size (inch)	Catalog Number		Dimension (mm)						For diameter (mm)	Standard Packing (pcs)
		Black	Gray	A	B	C	D	E	F		
PF 1/2	3/8"	L74390306	L75390306	28.0	44.0	13.0	21.0	20.0	32.0	6 - 8	50
PF 1/2	3/8"	L74390309	L75390309	28.0	44.0	13.0	21.0	20.0	32.0	9 - 12	50
PF 1/2	3/8"	L74390312	L75390312	28.0	44.0	13.0	21.0	20.0	32.0	12 - 15	50
PF 3/4	3/4"	L74390615	L75390615	39.0	52.0	13.0	26.4	25.0	40.0	15 - 18	25

Conduit Clip



M1496

- SK2 steel plate with electric dipping.
- Fix the conduit and prevent it from being sag.
- Easy and fast assembling, firm, reusable.
- For countersunk screw flat head 3/16"

Trade Size (inch)	Catalog Number	Standard Packing (pcs)
3/8"	M14960300	100
1/2"	M14960400	100
3/4"	M14960600	100
1"	M14961000	100

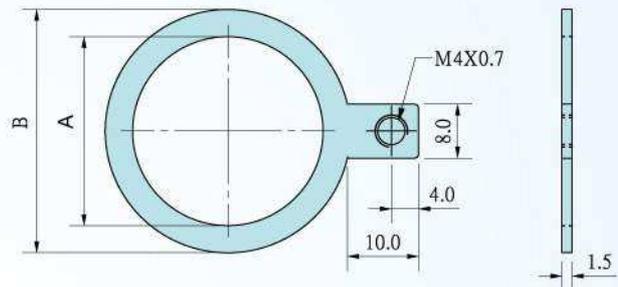
Earthing Tag

- Steel, zinc plated.
- Install onto fitting body for grounding & bonding.



K2146

- (Installation example, fitting is excluded)



Trade Size (inch)	Catalog Number	A (mm)	B (mm)
1/2"	K21460400	22.0	30.0
3/4"	K21460600	28.0	36.0
1"	K21461000	35.0	43.0
1-1/4"	K21461200	43.0	51.0

Ferrule



K2196

- Steel
- For protecting edges of all kinds of metallic flexible conduit



K2499

- Polyamide 6 (Nylon 6)
- For protecting edges of metallic flexible conduit
- Color: Black, gray



K2599

Trade Size (inch)	Catalog Number	I.D. (mm)	Catalog Number	Catalog Number	I.D. (mm)	Standard Packing (pcs)
5/16"	K21960200	9.0				100
3/8"	K21960300	11.5	K24990300	K25990300	10.5	100
1/2"	K21960400	14.5	K24990400	K25990400	13.5	100
3/4"	K21960600	19.5	K24990600	K25990600	18.5	100
1"	K21961000	25.0				100
1-1/4"	K21961200	33.5				100
1-1/2"	K21961400	38.5				50
2"	K21962000	49.5				50
2-1/2"	K21962400	60.0				20
3"	K21963000	75.0				10
4"	K21964000	97.0				10

Locknut



K2106

- NPT thread
- 1/2"~2" are steel, 2-1/2"~4" are ductile cast iron or malleable cast iron
- 2-1/2"~4" PT thread available.



K2102

- PF thread
- Die cast zinc

Thread	Catalog Number	Standard Packing (pcs)
NPT 1/2	K21060400	100
NPT 3/4	K21060600	50
NPT 1	K21061000	50
NPT 1-1/4	K21061200	50
NPT 1-1/2	K21061400	50
NPT 2	K21062000	50
NPT 2-1/2	K21062400	25
NPT 3	K21063000	25
NPT 4	K21064000	25



K2409

- PF thread
- Polyamide 6 (PA6) (Nylon 6)
- Black



K2509

- PF thread
- Polyamide 6 (PA6) (Nylon 6)
- gray

Thread	Catalog Number			Standard Packing (pcs)
PF 1/2	K21020400	K24090400	K25090400	100
PF 3/4	K21020600	K24090600	K25090600	50
PF 1		K24091000	K25091000	50
PF 1-1/4		K24091200	K25091200	50



K4106

- Metric thread
- Steel



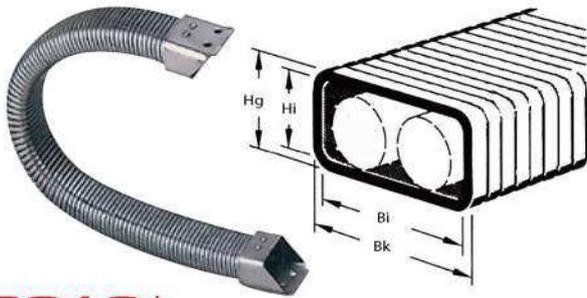
K6106

- PG thread
- Steel

Thread	Catalog Number	Standard Packing (pcs)
M16 X 1.5	K41060316	100
M20 X 1.5	K41060420	100
M25 X 1.5	K41060625	50
M32 X 1.5	K41061032	50
M40 X 1.5	K41061240	50
M50 X 1.5	K41061450	50
M63 X 1.5	K41062063	50

Thread	Catalog Number	Standard Packing (pcs)
PG9	K61060209	100
PG11	K61060311	100
PG13.5	K61060313	100
PG16	K61060416	100
PG21	K61060621	50
PG29	K61061029	50
PG36	K61061236	50
PG42	K61061442	50
PG48	K61062048	50

Cable Carrier

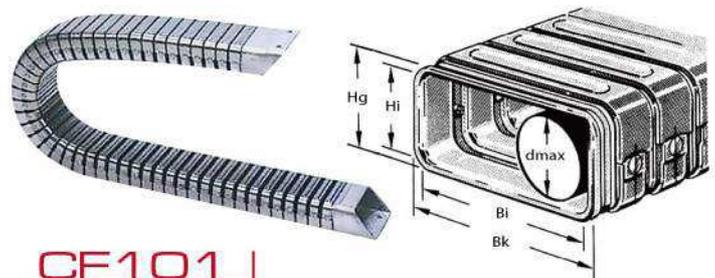


A8012

- Material: Galvanized steel sheet, supported by inner stainless steel plate.
- Shaped by one sheet.
- Installation: two flanges welded at two ends.
- Robust and durable.

Features

- When choosing cable carrier, it is better to keep 10% wider than the total of cable outside diameters.
- When deciding the bending radius, it's better to choose 8-10 times of the total of cable outside diameters.
- Keep the wire capacity within 60%-70% so that the wires have better space for moving and maintenance.



CF101

- Material: Stainless steel & PA 66 (Nylon 66) lining.

Type	Outside Width (Bk) (mm)	Outside Height (Hg) (mm)	Inside Width (Bi) (mm)	Inside Height (Hi) (mm)	Min. Bending Radius (KR) $\pm 10\%$ (mm)	Suggested Length (MAX) (mm)
A8012-1	50	30	43	23	100	3000
A8012-2	80	45	73	38	120	4000
A8012-3	110	60	102	52	140	5000
A8012-4	130	65	122	57	150	5000
A8012-6	150	70	142	62	170	5000
A8012-7	170	80	162	72	200	5000

Type	Outside Width (Bk) (mm)	Outside Height (Hg) (mm)	Inside Width (Bi) (mm)	Inside Height (Hi) (mm)	Max Diameter (dmax) (mm)	Min. Bending Radius (KR) (mm)
CF101-1	60	36	45	25	20	70, 100
CF101-2	90	53	74	40	34	100, 150, 200
CF101-3	118	67	102	52	47	100, 150, 200, 250
CF101-4	118	92	102	72	65	150
CF101-5	182	92	162	72	65	150

A8012 FLANGE: (Material: steel)

m/m(approx)

TYPE S	No.	al	bl	c	d	e	f	l	t
	1	55	35	22	7	45.0	60	30	2.0
	2	85	50	50	7	67.5	90	45	2.0
	3	113	65	70	9	90.0	120	60	2.0
	4	135	70	70	9	90.0	120	60	2.0
	6	155	75	100	9	90.0	120	60	2.0
	7	175	85	100	9	120.0	160	80	2.0

CF101 FLANGE: (Material: aluminum alloy)

m/m(approx)

TYPE S	No.	b	h	e	d	l1	l2
	1	60	38	22	7	38	9
	2	90	53	50	7	38	9
	3	118	69	70	9	45	12
	4	120	92	70	9	50	14
	5	180	90	100	9	52	16

TYPE A	No.	al	bl	c	d	g	h	p	l	t
	1	55	35	7	18	35	73	55	30	2.0
	2	85	50	7	45	65	88	70	45	2.0
	3	113	65	9	60	80	113	90	60	2.0
	4	135	70	9	60	80	118	95	60	2.0
	6	155	75	9	80	100	123	100	60	2.0
	7	175	85	9	95	120	133	110	80	2.0

TYPE A	No.	b	h	eb	eh	d	l
	1	60	70	18	55	7	30
	2	90	85	45	70	7	26
	3	118	114	60	90	9	26
	4	120	130	60	110	9	30
	5	180	145	95	110	9	30

TYPE B	No.	al	bl	c	d	g	k	l	t
	1	55	35	75	7	93	15	30	2.0
	2	85	50	105	7	123	30	45	2.0
	3	113	65	140	9	161	35	60	2.0
	4	135	70	160	9	183	40	60	2.0
	6	155	75	180	9	203	40	60	2.0
	7	175	85	200	9	223	40	80	2.0

TYPE B	No.	b	h	b1	e	d	l
	1	60	35	90	75	7	28
	2	90	51	124	105	7	26
	3	118	66	162	140	9	26
	4	120	90	167	145	9	31
	5	180	90	225	200	9	31

◆ Application :

For protecting wires of CNC machine, machine tool, robotic arm, fabric machine, industrial machine, air compressor, hydraulic cylinder, and rubber tubes for gas & liquid.

◆ When choosing suitable cable carrier, please consider:

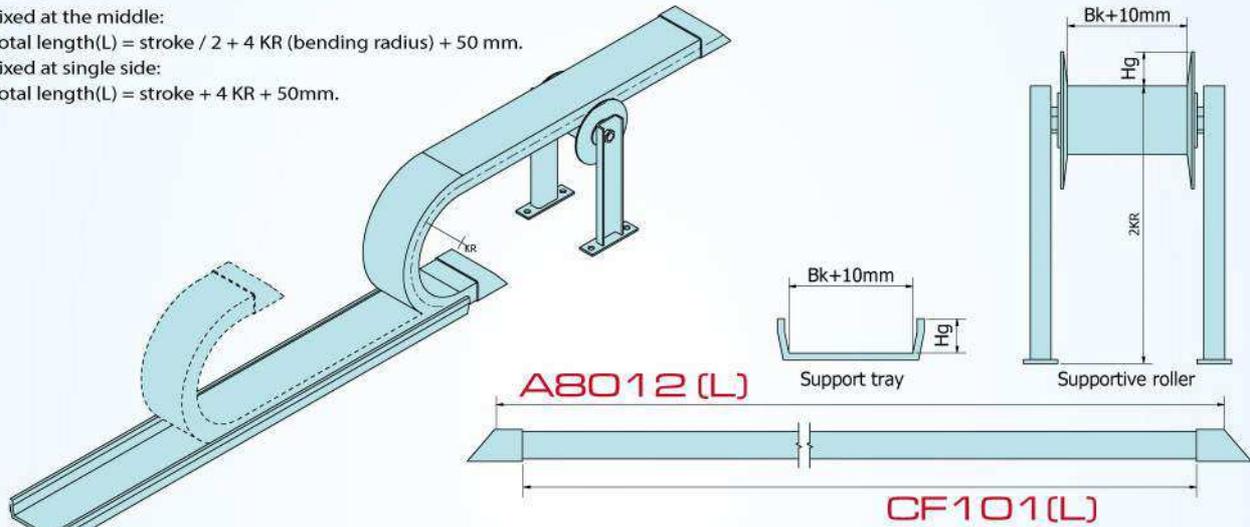
- Size, number and weight of wires and conduit
- Min. bending radius of wires and conduit
- Stroke
- Environment and beauty
- Need of support tray

◆ Note :

- High flexibility wire with outer diameter smaller than 10 mm should be protected by flexible conduit before put in cable carrier
- Deploy weight equally in cable carrier. It's better to deploy the bigger/heavier wires and conduits at two sides of cable carrier.
- Wires and conduits must be deployed straightly in cable carrier.
- Loading of its own and stroke (decide by additional loading)
- To make sure cable carrier work smoothly, support tray is required for longer stroke. If stroke is longer than loading length, upper cable carrier would sag and lean on the lower cable carrier.

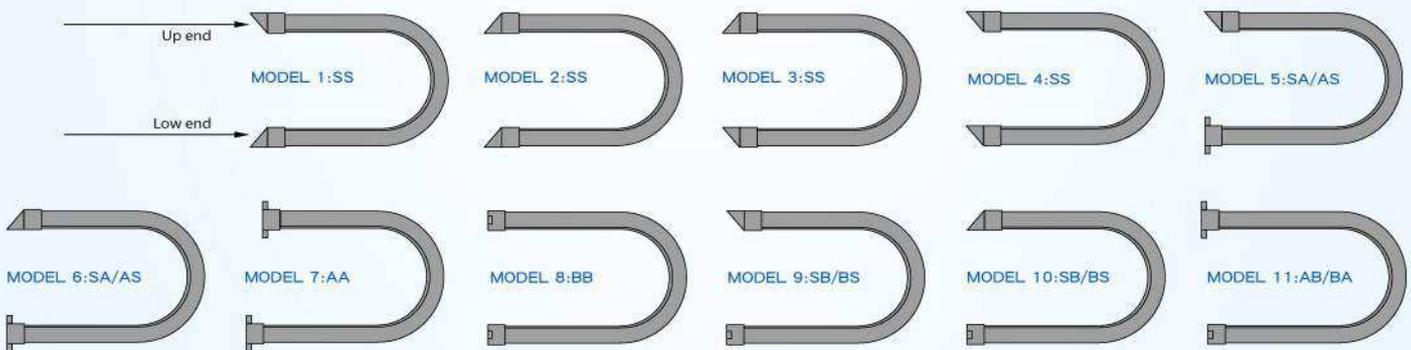
Length:

1. Fixed at the middle:
Total length(L) = stroke / 2 + 4 KR (bending radius) + 50 mm.
2. Fixed at single side:
Total length(L) = stroke + 4 KR + 50mm.



*When installing cable carrier, please apply the supportive roller (as illustrated):

A8012/CF101 Flange installation types:



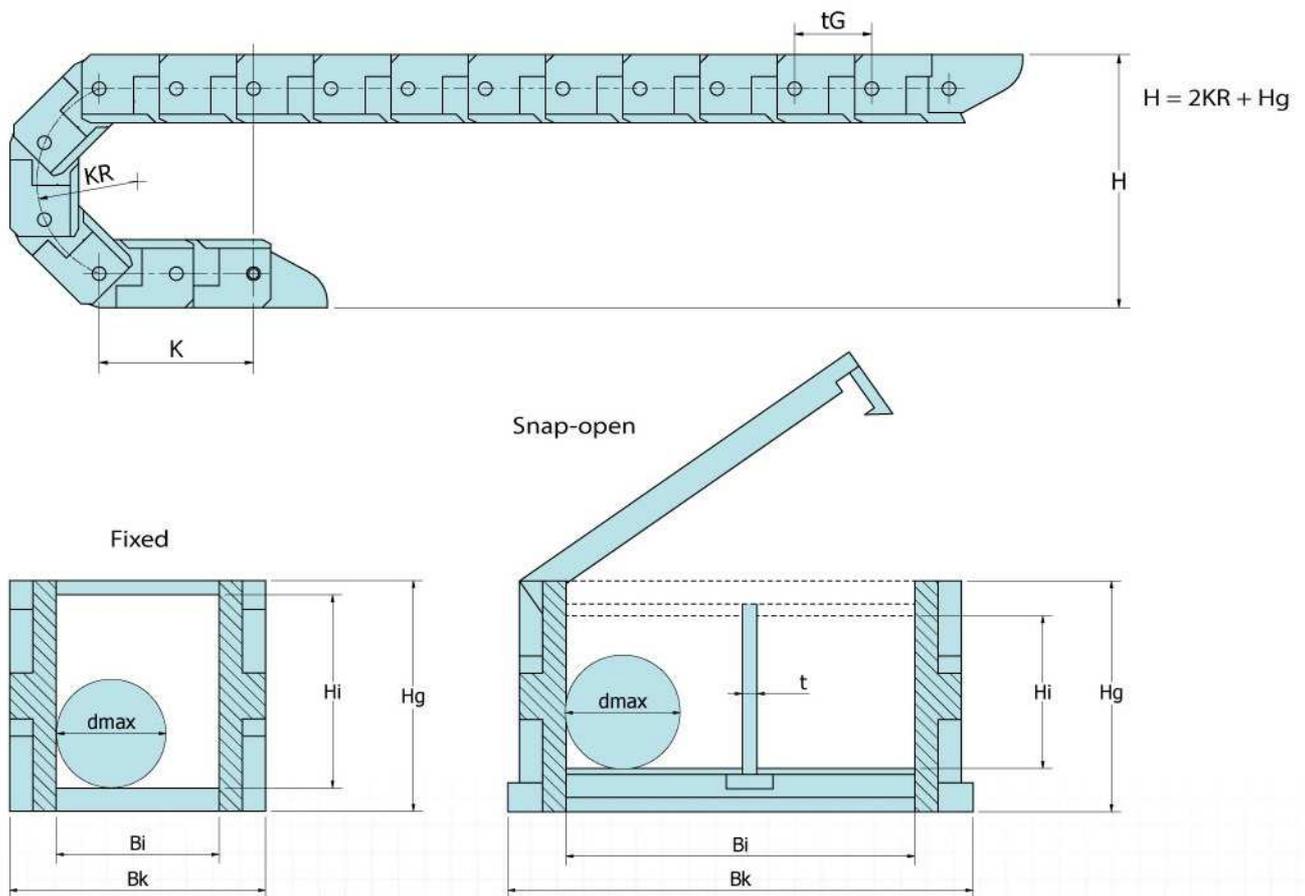
Please offer the following information when ordering:

Cable Carrier		Flange type			Bending Radius (KR)	Length (L)
TYPE	Outside width x Outside height (a x b)	Model No.	Up	Low		

Cable Drag Chain

A8019

- Material: PA6+ fiber reinforced plastic (FRP), chemical resistant, temperature range from -20°C ~ 125°C , suitable for long-term movement.
- Simply use slotted screwdriver to open the cap, convenient for the installation and change of wires and all kinds of conduits.
- Use divider to separate wires and conduits with different sizes in case of twist or electric wave interference.
- $H = 2KR + H_g$

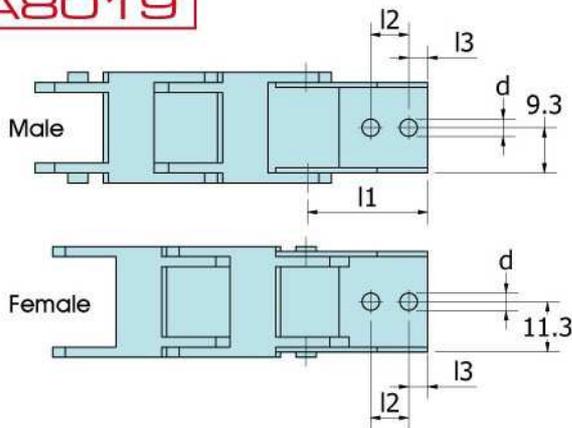


Type	Outside Width (Bk)(mm)	Outside Height (Hg)(mm)	Inside Width (Bi)(mm)	Inside Height (Hi)(mm)	Bending Radius (KR)(mm)	Pitch (tG) (mm)	Wire/ Conduit Diameter dmax (mm)	Cap	*Divider(t) (mm)
A8019-0 (320.20)	24	25	13	19	37	32.5	11	Fixed	-
A8019-1 (320.42)	37	27	24	19	37, 47, 77, 100	32.5	16	Fixed	-
A8019-2 (450.21)	57	40	38	24	52, 94, 125, 150	45.5	22	Snap-open	2.5
A8019-3 (450.41)	77	40	58	24	52, 94, 125, 150, 200	45.5	22	Snap-open	2.5
A8019-4 (450.61)	97	40	78	24	52, 94, 125, 200	45.5	22	Snap-open	2.5
A8019-5 (625.23)	93	62	65	34	90, 125, 200	63.0	31	Snap-open	3.5
A8019-6 (625.43)	136	62	108	34	90, 125, 200, 300	63.0	31	Snap-open	3.5

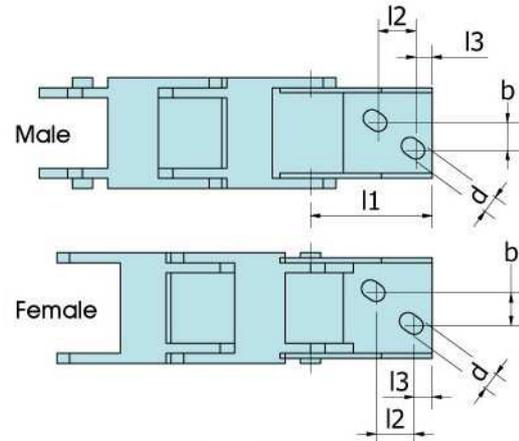
*Divider (optional) AA8019012B for A8019-2, A8019-3, A8019-4
AA8019015B for A8019-5, A8019-6

End Bracket for Cable Drag Chain

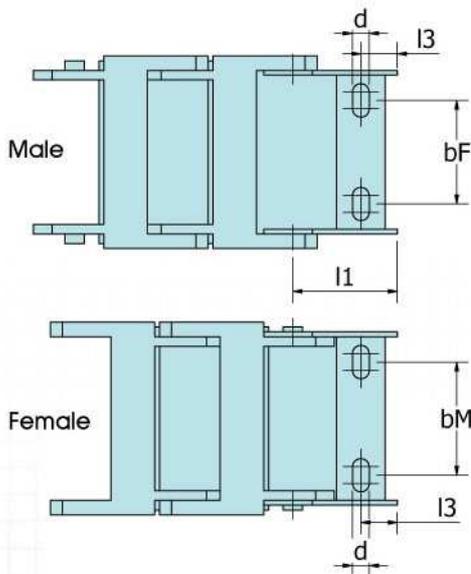
AA8019



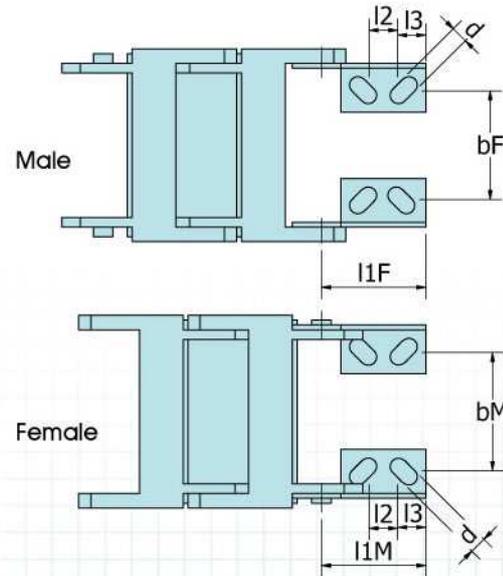
Cable Drag Chain Type	A8019-0 (320.20)	
Bracket Catalog Number	AA8019060B	
End bracket (mm)	l1	50
	l2	15
	l3	7.5
	b	-
	d	∅ 7/M6



Cable Drag Chain Type	A8019-1 (320.42)	
Bracket Catalog Number	AA8019061B	
End bracket (mm)	l1	50
	l2	15
	l3	7.5
	b	11
	d	∅ 7/M6



Cable Drag Chain Type	A8019-2 (450.21)	A8019-3 (450.41)	A8019-4 (450.61)	
Bracket Catalog Number	AA8019062B	AA8019063B	AA8019064B	
End bracket (mm)	l1	40	40	40
	l3	16	16	16
	bF	25	43	63
	bM	29	47	68
	d	∅ 7/M6	∅ 7/M6	∅ 7/M6



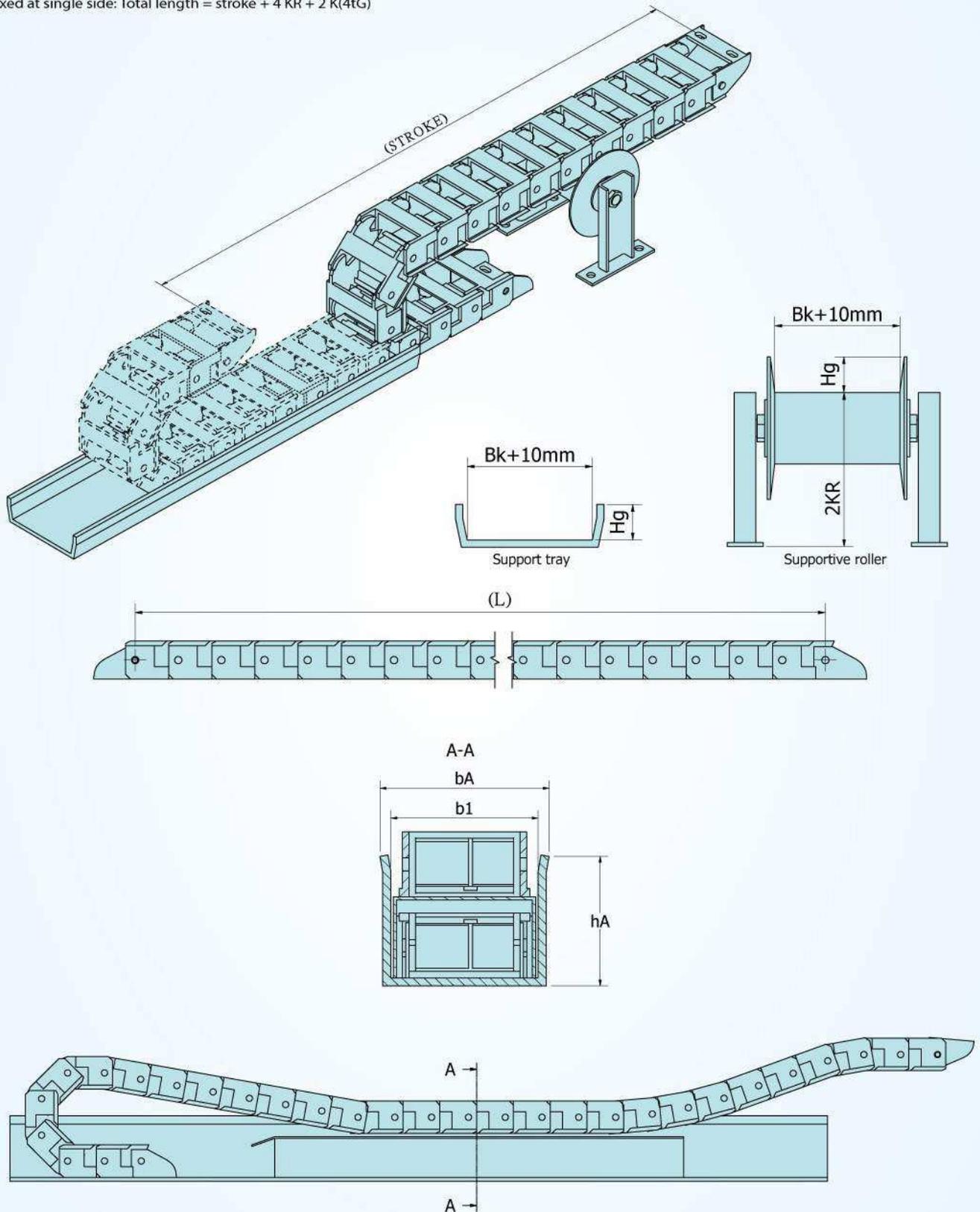
Cable Drag Chain Type	A8019-5 (625.23)	A8019-6 (625.43)
Bracket Catalog Number	AA8019065B	
End bracket (mm)	l1F	63
	l1M	70
	l2	30
	l3	12.5
	bF	52
	bM	58.5
	d	∅ 9/M8

Cable Drag Chain

Length:

Fixed at the middle: Total length = stroke / 2 + 4 KR (bending radius) + 2 K(4tG)

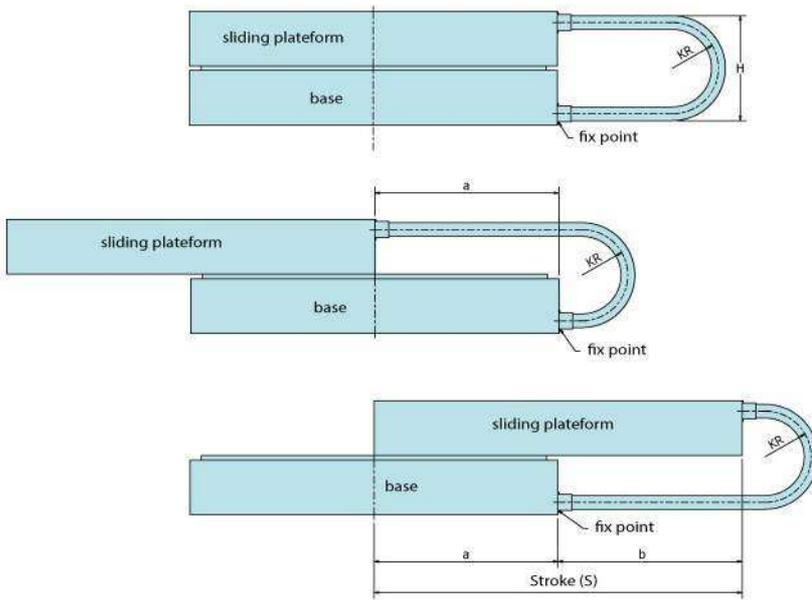
Fixed at single side: Total length = stroke + 4 KR + 2 K(4tG)



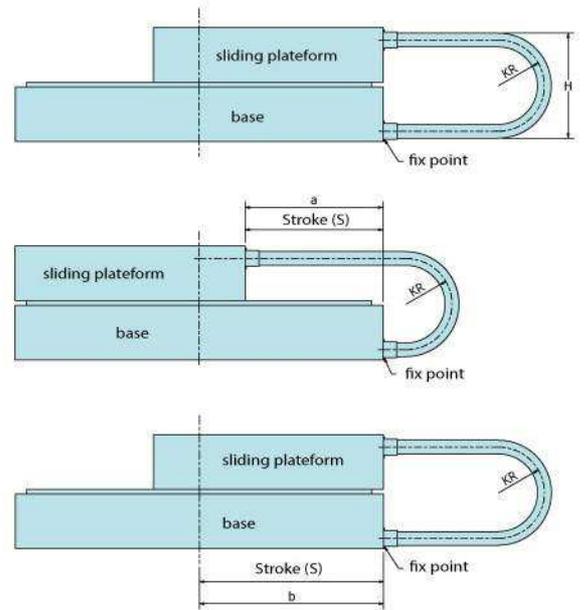
Cable Carrier

Installation illustration:

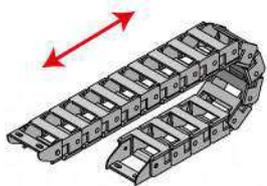
Fixed at middle



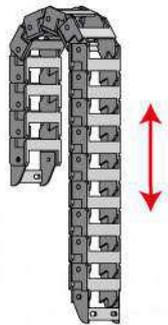
Fixed at one side



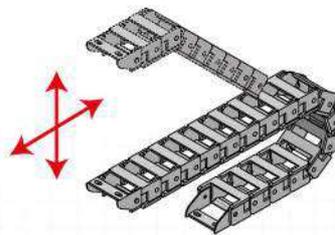
Assembly example:



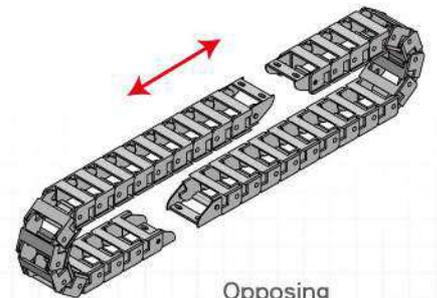
Horizontal



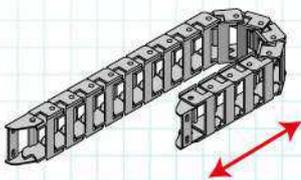
Vertically supported



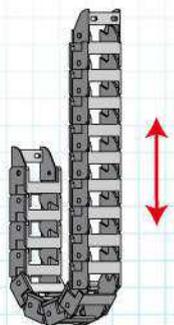
Combined horizontal / vertical



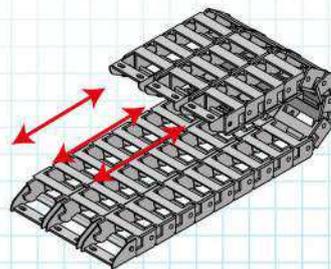
Opposing



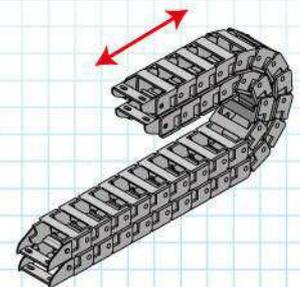
Side mounted



Vertically suspended



Side by side



Dual mounting

Public Safety Is Our First Priority

Life is priceless, and safety is life's greatest comfort. Bliss understand your demand of good quality, and therefore every product is inspected step by step.

Quality Assurance



BLISS In-house Laboratory

Offering good products is our responsibility.

BLISS product inspections include Corrosion Resistance, Tension, Flexibility, Crushing, Elongation and Tensile, Resistance, Moisture Penetration, Bending, Flammability, Assembly, Heat-Distortion, Cold Impact, Heat Aging, Oil Resistance Test and so on.



warranty: one year from shipment under normal use, unnormal or incorrect use excluded.

Appendix 1 Flexible Conduit Assembly Procedures



■ Put conduit through cap nut and gland packing .

■ Position the ferrule at the end of the conduit. (Just have the bottom of ferrule cover the conduit, over-tighten may enlarge conduit diameter and loosen.)

■ Pass wires through conduit.

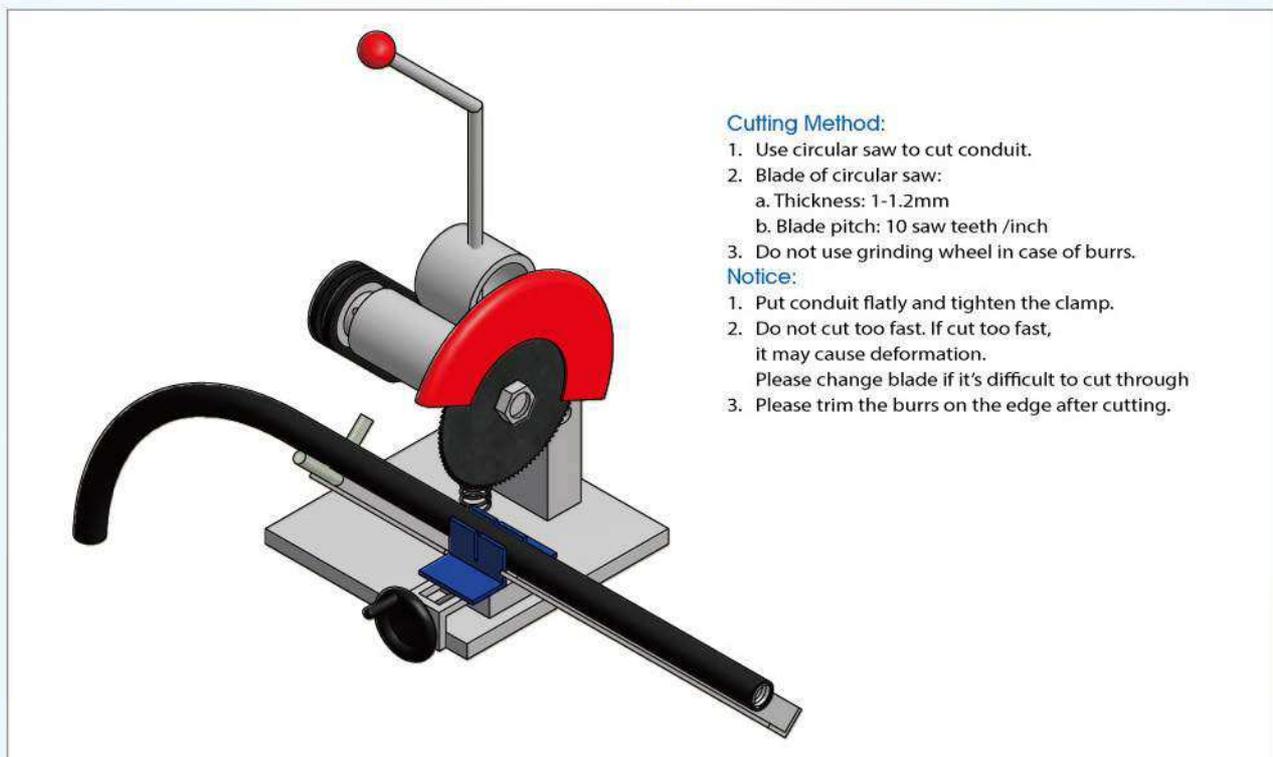


■ Connect connector into box, tighten locknut with body.

■ Insert the conduit with ferrule into connector body.

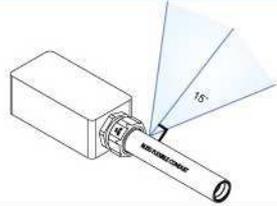
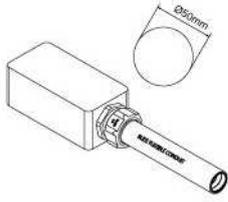
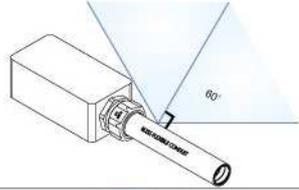
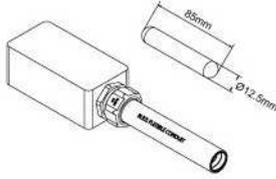
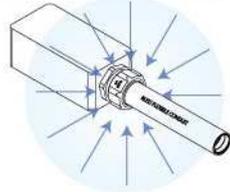
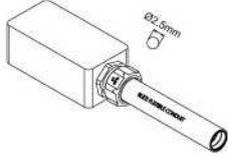
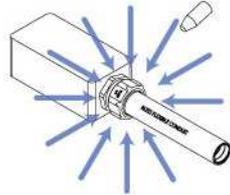
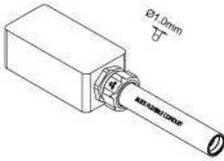
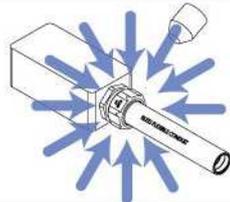
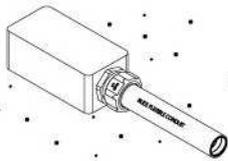
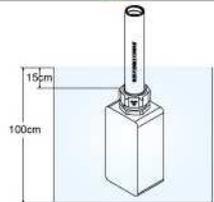
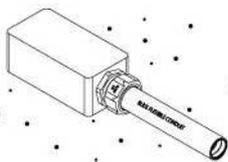
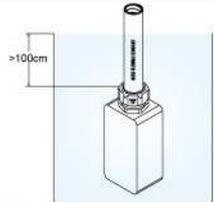
■ Push gland packing and cap nut forwards to connector body and tighten the cap nut.

Please place conduit on a stable platform when cutting conduit and use (circular) saw carefully.



Appendix 2 IEC 529 International Protection Code (IP Code)

According to IEC 60529 ed 2.2:2013, products are separated into different levels by its Ingress Protection performance. The first digit means the protection against foreign objects and the second digit means the protection against liquid as follows:

1 st digit		2 nd digit	
<p>0. No protection</p>		<p>2. Protection against direct sprays of water up to 15° from the vertical.</p>	
<p>1. Protection against solid objects over 50mm, e.g. touch by hand.</p>		<p>3. Protected against direct sprays of water up to 60° from the vertical.</p>	
<p>2. Protection against solid objects with diameter over 12mm, length over 80mm, e.g. touch by finger.</p>		<p>4. Protection against water sprayed from all directions – limited ingress permitted.</p>	
<p>3. Protection against solid objects over 2.5mm, e.g. tool or wire.</p>		<p>5. Protected against low pressure jets of water from all directions - limited ingress.</p>	
<p>4. Protection against solid objects over 1.0mm, e.g. metal fiber. (tools, wires, and small wires)</p>		<p>6. Protected against temporary flooding of water, e.g. for use on ship decks - limited ingress permitted.</p>	
<p>5. Protected against dust limited ingress (no harmful deposit).</p>		<p>7. Protected against the effect of immersion between 15 cm and 1 m.</p>	
<p>6. Totally protected against dust.</p>		<p>8. Protects against long periods of immersion under pressure.</p>	

Appendix 3 IEC Classification Key & Limitation of Cable Capacity

BS EN 61386, IEC 61386 Classification Coding

Level	Compression Strength (N)	Impact Strength (J)	Min. Temperature (°C)	Max. Temperature (°C)	Tensile Strength (N)
0	-	-	-	-	Not declared
1	125	0.5	5	60	100
2	320	1	-5	90	250
3	750	2	-15	105	500
4	1250	6	-25	120	1000
5	4000	20	-45	150	2500
6	-	-	-	250	-
7	-	-	-	400	-

In many countries, the number of conductors is limited in conduits for better electrical safety.

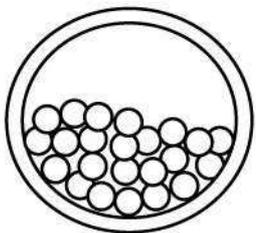
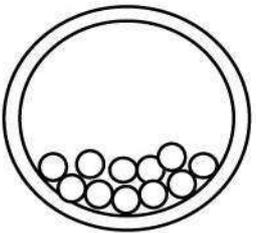
Please refer to the following charts for better understanding:

1. According to UK wire regulations BS 7671 Requirements For Electrical Installations, it is regulated that the conductor in conduits shall be less than 40% of the total cross sectional area.

2. In National Electrical Code, wire capacity is also limited:

Number of Conductors	All Conductor Types
1	53
2	31
Over 2	40

3. In Taiwan, Chinese National Standards (CNS) also regulates in Indoor Wiring Regulation Article 222:

One conductor size	More than one conductor size
Less than 60%	Less than 40%
	

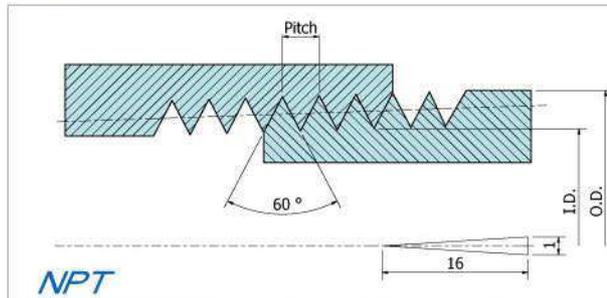
To protect the end user's safety, please follow the installation regulations. Please do not overload conductors in case of overheating and fire.

BLISS Performance by BS EN 61386

BLISS Product	Compression Strength (N)	Impact Strength (J)	Min. Temperature (°C)	Max. Temperature (°C)	Tensile Strength (N)
A2012	4	4	5	7	3
A2013	4	4	5	7	3
A2017	4	4	4	1	4
A2018	4	4	4	1	3
A2066	4	4	4	1	4
A2067	4	4	4	1	4
A2068	4	4	4	1	4
A2082	4	5	5	7	4
A2116	4	4	4	1	4
A2167	4	4	4	1	4
A7012	4	4	5	7	4
A7013	4	4	5	7	4
A7207	4	4	4	1	4
A7217	4	4	4	1	4
A9133	4	4	5	7	3
A9333	4	4	4	1	4
A9533	4	4	4	1	4
E2017	2	3	4	1	2
M2012	4	4	5	7	3
M2017	4	4	4	1	4
N2017	2	4	4	3	2
R2066	4	4	4	1	4
S2066	4	4	5	3	4
S2067	4	4	5	3	4
U2017	4	4	4	2	4
U2066	4	4	4	2	4

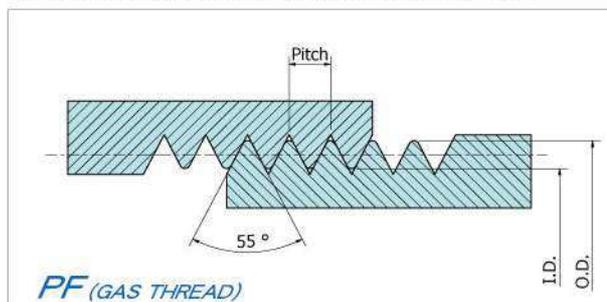
Sample : 1/2" Conduit

Appendix 4 Thread Data



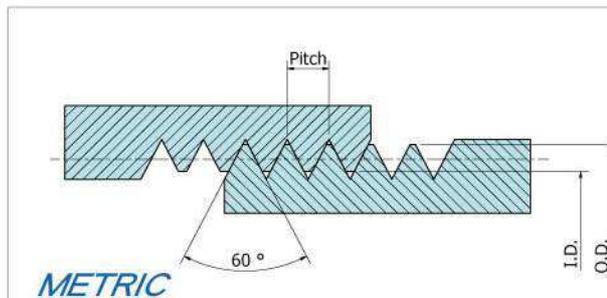
US taper seal pipe thread ANSI/ASME B1.20.1-1983

Thread size (inch)	Thread		Pitch	Threads inch
	O.D.	I.D.		
3/8"	16.7	15.0	1.41	18
1/2"	21.0	18.0	1.81	14
3/4"	26.4	23.7	1.81	14
1"	33.3	29.7	2.21	11.5
1-1/4"	41.9	38.5	2.21	11.5
1-1/2"	47.8	44.5	2.21	11.5
2"	59.6	56.6	2.21	11.5
2-1/2"	72.7	67.6	3.18	8
3"	88.6	83.5	3.18	8
4"	114.0	108.9	3.18	8



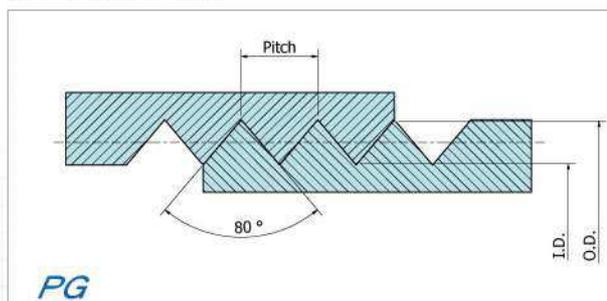
Japanese JIS B0202

Thread size (inch)	Thread		Pitch	Threads inch
	O.D.	I.D.		
G 3/8"	16.7	15.0	1.34	19
G 1/2"	21.0	18.6	1.81	14
G 3/4"	26.4	24.1	1.81	14
G 1"	33.3	30.3	2.31	11
G 1-1/4"	41.9	39.0	2.31	11
G 1-1/2"	47.8	44.8	2.31	11
G 2"	59.6	56.7	2.31	11
G 2-1/2"	75.2	72.2	2.31	11
G 3"	87.9	84.9	2.31	11
G 4"	113.0	110.1	2.31	11



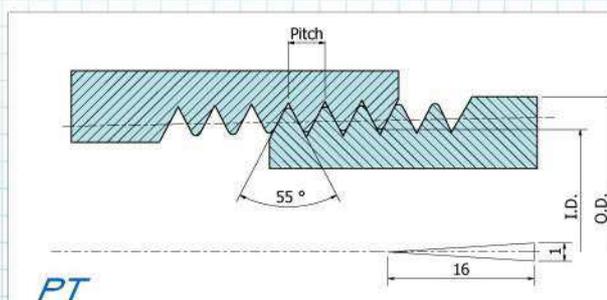
EN60423 & BS3643

Thread size (inch)	Thread		Pitch	Threads inch
	O.D.	I.D.		
M10	10.0	8.9	1.0	25.4
M12	12.0	10.9	1.0	25.4
M16	16.0	14.4	1.5	17
M20	20.0	18.4	1.5	17
M25	25.0	23.4	1.5	17
M32	32.0	30.4	1.5	17
M40	40.0	38.4	1.5	17
M50	50.0	48.4	1.5	17
M63	63.0	61.4	1.5	17
M75	75.0	73.4	1.5	17



German Standard DIN40430

Thread size (inch)	Thread		Pitch	Threads inch
	O.D.	I.D.		
PG7	12.5	11.3	1.27	20
PG9	15.2	13.9	1.41	18
PG11	18.6	17.3	1.41	18
PG13.5	20.4	19.1	1.41	18
PG16	22.5	21.2	1.41	18
PG21	28.3	26.8	1.59	16
PG29	37.0	35.5	1.59	16
PG36	47.0	45.5	1.59	16
PG42	54.0	52.5	1.59	16
PG48	59.3	57.8	1.59	16



Japanese JIS B0203

Thread size (inch)	Thread		Pitch	Threads inch
	O.D.	I.D.		
R 1/2"	21.0	18.6	1.81	14
R 3/4"	26.4	24.1	1.81	14
R 1"	33.3	30.3	2.31	11
R 1-1/4"	41.9	39.0	2.31	11
R 1-1/2"	47.8	44.8	2.31	11
R 2"	59.6	56.7	2.31	11
R 2-1/2"	75.2	72.2	2.31	11
R 3"	87.9	84.9	2.31	11
R 4"	113.0	110.1	2.31	11

Appendix 5 Hazardous (Classified) Location and Bliss Product Performance

Hazardous (Classified) Locations Classifications and Definition					Hazardous Area
NATIONAL ELECTRIC CODE (NEC) - CLASSIFICATION CHART (NEC 500,501,502,503)		EU IEC	Japan JIS	Area Definition	Suitable BLISS Product
CLASS	DIVISION	ZONE	ZONE		
CLASS 1	1. HAZARD EXISTS Area where GASES or VAPORS are normally present.	Zone 0	0	Area in which an explosive gas-air mixture is continuously present or present for long periods.	C1D2 C2D1 C2D2 C3D1 C3D2 A2066 R2066 S2066 U2066 B2101 L2101 N2101 C2101 B2141 L2141 N2141 B2161 L2161 N2161 B2182
		Zone 1	1	Combustible or conductive dusts are present. Area in which an explosive gas-air mixture is likely to occur for short periods in normal operation.	
GAS	2. POTENTIAL HAZARD Area where GASES or VAPORS are handled or stored, but are not normally confined or in closed container systems.	Zone 2	2	Area in which an explosive gas-air mixture is not likely to occur, and if it occurs it will only exist for a very short time due to an abnormal condition.	
CLASS 2	1. HAZARD EXISTS Area where combustible DUST is always present.	Zone 20			
		Zone 21			
DUSTS	2. POTENTIAL HAZARD Area where combustible DUST is present in atmosphere.	Zone 22			
CLASS 3	1. PRODUCTION AREAS. 2. HANDLING OR STORAGE AREAS.	Not classified			
					FIBERS

Classification		Code	Classification		Code	Classification		Code
Type of Explosion-proof	Flameproof	d	Gas and Dust Classification	Class 1	1	Auto-ignition Temperature	Auto-ignition G1	G1
	Oil Immersion	o		Class 2	2		Auto-ignition G2	G2
	Pressurized	p		Class 3	3a 3b 3c 3n		Auto-ignition G3	G3
	Increased Safety	e					Auto-ignition G4	G4
	Intrinsic safety	i					Auto-ignition G5	G5
	Special	s					Auto-ignition G6	G6

Gas and Dust Classification

CLASS	USA NEC	EU IEC	Common Materials within Associated Class & Group Ratings	Japan JIS	Classification
	GROUP	GROUP		Gas Group	
CLASS 1	A	II C	Acetylene	3	3a: Hydrogen 3b: Carbon disulphide 3c: Acetylene 3n: All vapors above
	B		Hydrogen		
	C	II B	Ethylene	2	
	D	II A	Propane	1	
CLASS 2	E	III C	Metal Dust, Aluminum, Magnesium, etc.		
	F	III B	Carbon Black, Coal Dust Coke, Dust.		
	G		Flour, Grain.		
CLASS 3		III A	Atmospheres with Textile, Wood or Synthetic Fibers.		

Temperature Classification

JIS	NEC/ IEC	Ignition Temperature
G1	T1	Over 450°C
G2	T2	Over 300°C to 450°C
G3	T3	Over 200°C to 300°C
G4	T4	Over 135°C to 200°C
G5	T5	Over 100°C to 135°C
G6	T6	Over 85°C to 100°C



Bliss flexible conduit represents safety and economy.

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